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ABSTRACT

This booklet comprises the high school health component of a series of curriculum guides on fire and burn prevention. It is designed to meet the age-specific needs of ninth and tenth grade students. Objectives include: (1) reviewing comprehensive fire and burn prevention techniques and emergency actions; (2) developing an awareness of fire safety needs of all age groups; and (3) focusing on smoking and flammable liquids. Texas essential elements of health instruction that may appropriately be integrated with the fire prevention curriculum are listed. The booklet's three sections provide lesson plans, teacher materials, and student materials. The five lessons are: "The Needs of All Persons"; "Special Problems"; "Taking Charge"; "Helping Others"; and "Smoking Safety." Each lesson plan includes objectives; a list of materials; and suggestions for a focus activity, presentation of content, guided and independent practice, reteaching, enrichment, and closure. A pretest/posttest is provided, along with activity sheets to be photocopied. A scope and sequence chart covering kindergarten through high school is also presented. (JDD)

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Fire Safety for Texans

Fire and Burn Prevention Curriculum Guide Developed by Texas Commission on Fire Protection

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Health (High School)

A Lifetime For Fire Safety

SP 35384

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Texas Commission on Fire Protection

P.O. Box 2286 • Austin, Texas 78768-2286 • (512) 873-1700

Dear Educator:

The Texas Commission on Fire Protection is pleased to provide this curriculum guide to facilitate the teaching of fire prevention. To understand why instruction in fire prevention must be matched to the developmental needs of students, please read the Introduction section beginning on Page 3. This introduction also tells how fire prevention education can be coordinated with the instructional requirements of Texas schools.

We welcome your comments and suggestions. Please telephone or write to share your successes and questions with our staff. Also, we invite you to request guides for other grade levels and additional copies of this booklet by clipping and returning the form below.

Your involvement in fire prevention education will be appreciated by your students and your entire community.

Sincerely,

Anne Easterling
Program Administrator
Fire Prevention Education

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El Paso

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Vice Chairman
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Fire Safety for Texans

Fire and Burn Prevention
Curriculum Guide Developed by
Texas Commission on Fire Protection

Health (High School)

A Lifetime For Fire Safety

Published July 1993
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Fire Safety for Texans

The complete series from the Texas Commission on Fire Protection

Kindergarten
Fire Safe Together

First Grade
Fire Safety: Any Time, Any Place

Second Grade
Making Me Fire Safe

Third Grade
Positively Fire Safe

Fourth Grade
Fire Safety: Stop the Heat

Fifth Grade
Charged Up For Fire Safety

Sixth Grade
Fire Safety Power

Seventh Grade
Responsible For Fire Safety

Eighth Grade
Fire Safety's My Job

Health (High School)
A Lifetime For Fire Safety

Economics (High School)
Fire Safety For Consumers

Scope and Sequence for Fire and

	Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade
General Objectives	basic awareness of fire and burn dangers; simple actions to reduce injury; parent involvement	basic knowledge of fire and burn hazards; basic understanding of simple injury reduction; continuation of parent involvement	basic understanding of how to prevent and put out fires; greater self-direction to prevent and react to fire, smoke or burn situations	hazards and safe storage of flammable liquids, positive actions to prevent fires and burns or to reduce injuries, especially related to metallic objects	principles of extinguishing fires; issues related to peer pressure related to fire setting; self-motivation to effect changes with family involvement; role of fire service in the community
Science of Fire understands and analyzes facts about fire	classifies "good" and "bad" fires and heat sources *25(a)3A, 26(a)1C	identifies three elements of fire triangle *25(b)2C lists and classifies things that do and do not burn *25(b)3B,5B	explains putting out a fire as removing or controlling one element *25(c)3B, 26(c)1C defines and gives examples of controlled and uncontrolled fires *25(c)3B, 26(c)1C	defines and gives examples of combustible, noncombustible, flammable and nonflammable materials, with relation to gas, liquid and solid states *25(d)7A, **3.1,3.5	interprets three elements of fire to explain how to prevent and extinguish fires *25(e)6B, 26(e)1G describes characteristics of heated gases from fires *25(e)4B, 26(e)1G
Safety Communication knows and applies terms and symbols associated with fire and burn safety	identifies EXIT signs in schools and public buildings *29(a)1E identifies "hot" and "cold" symbols on faucets *26(a)1C, 29(a)1E				
Injury Reduction knows, performs and analyzes techniques to reduce fire and burn injuries	demonstrates and practices rolling on ground in case of clothing fire *25(a)3C, 26(a)1C, 29(a)1D demonstrates and practices crawling on ground in smoke of fire situations *25(a)3C, 26(a)1D	demonstrates cooling a burn with cool water *25(b)5B, 26(b)1C, **1.1 demonstrates and describes crawling in suspected smoke or fire situation because smoke rises *25(b)2C, 26(b)1C, **1.1 demonstrates and describes rolling to put out clothes fire *26(b)1C, **1.1	explains using cool water to reduce burn injury *25(c)7B, 26(c)1C explains that rolling on ground keeps air from fire on clothes *25(c)7B, 26(c)1C explains that smoke and gases from fire can affect thinking *25(c)7B, 26(c)1C	explains injury reduction skills to others through song, dance, story, demonstration, etc. *26(d)1D,1E	lists and describes effects of toxic gases in smoke and fire byproducts *25(e)7B, 26(e)1G, ** 1.4
Hazard Recognition recognizes fire and burn hazards at home, play and work	classifies hot and cold objects, including cigarettes and appliances *25(a)1A,3A, 26(a)1C identifies smoking cigarettes as a hazard to cause burns and to start fires *26(a)1D	distinguishes electrical objects, a potential heat sources, as having cords *25(b)3B,4B identifies home and community as city or rural and types of related fire risk *25(b)6D, 29(b)5A, **1.8	predicts how electrical appliances can become hazards through carelessness, misuse, disrepair, including unattended cooking *25(c)6A, 26(c)1C identifies special holiday hazards related to family customs or traditions *26(c)1C, 29(c)6B	classifies metallic and non-metallic objects *25(d)3B, **3.6 distinguishes metallic objects as contact burn hazards *25(d)6B,8A, 26(d)1E identifies positive behaviors with hazardous appliances *26(d)1E	describes types of hazards from discarded cigarettes *26(e)1F
Hazard Reduction applies and values techniques for reducing or eliminating fire and burn hazards	states rule to stay aware from hot objects *26(a)1C, 29(a)1A tells parents, "Kees, me safe from fire" *29(a)1B	describes or illustrates need for smokers to have watchers *25(b)7B, 26(b)1D encourages parents to conduct home inspection using provided checklist *25(b)7B, 26(b)1C,2B	describes benefit of family working together to reduce fire and burn hazards *25(c)2B writes at least five rules for safe behavior *26(c)1C	conducts inspection for safe flammable storage with parents using provided checklist *26(d)1E,2B identifies fire safety for holidays in each month *26(d)1E	demonstrates reactions to hazardous situations, including removal of fire hazards *26(e)1F identifies safety features in school, home and other buildings *26(e)1F,1G
Escapes And Drills knows and applies methods of fire and smoke warnings and escape and exit techniques; values the importance of smoke detectors and escape planning	demonstrates actions in school exit drills *26(a)1C, 29(a)1D	identifies smoke alarm as warning to get out *26(b)1C draws map of home with two ways out for everyone *25(b)4D states steps and rules for school exit drill *26(b)1C, 29(b)4B	describes general guidelines for smoke detector placement (each level, outside bedrooms) *26(c)1C describes or illustrates alternate ways out of a building *26(c)1C organizes home drill *26(c)1C,2B, 29(c)1C	gives details of action at home alone in suspected fire situations *26(d)1D assists parent in maintaining smoke detector using provided guidelines *25(d)7B, 26(d)1E,2B identifies low battery warning on smoke detector *26(d) 1D	explains need for exit plans and drills, especially at home *25(e)6A, 26(e)1F,2C, 29(e)1A, **1.8
Matches And Firesetting recognizes hazards of matches, lighters and other firesetting instruments; knows and values techniques for reducing intentional fires	demonstrates telling an adult if he/she sees matches *26(a)1C, 29(a)1A	describes or illustrates matches as tools for adults *26(b)1C	describes why matches are not toys *26(c)1C	describes how matches can be used safely *26(d)1E	demonstrates resisting peer pressure related to fire, matches and smoking *29(e)1C, **1.8
Reporting A Fire knows and applies appropriate methods of reporting suspected fire or smoke situations	demonstrates telling an adult about smoke or fires *25(a)3C, 26(a)1C	demonstrates yelling and other signals to warn others *26(b)1C memorizes emergency telephone number *26(b)1C	demonstrates dialing emergency telephone number *26(c)1C demonstrates giving name and address *26(c)1C	describes or demonstrates what to report in an emergency situation *26(d)1D	describes local locations and uses of fire alarm boxes *26(e)1F
Care Giving understands and values appropriate supervision of and intervention for other people, especially young children and older adults	tells parents to give fire safety rules to baby-sitter *26(a)1C			writes rules for baby-sitter or care giver for family, with parents' assistance and consideration of ages of family members *26(d)2B, 29(d)2A, 6B	
The Fire Service understands and values the role of the fire service in preventing and suppressing fires	identifies fire fighters and other fire service workers as friends *29(a)1B	describes fire fighter as community helper who helps prevent fires and who puts out fires *25(b)7C, 29(b)4C, **1.7	identifies ways that fire fighters are involved in fire suppression and prevention *29(c)4A		lists the four primary services provided by the fire services *26(e)3A describes fire department's role in helping the community stay safe and healthy *26(e)3A, **1.7
Outdoor Safety knows and applies techniques for reducing outdoor fires and injuries from outdoor fire and burn hazards	demonstrates or illustrates staying away from campfire, trash burning, etc. *26(a)1C	distinguishes how outdoor fires are different from building fires *25(b)6D, 26(b)3, **1.8	identifies outdoor electrical hazards (storms, tools, campfires) *25(c)4B, 26(c)3A, **2.9		describes safe practices with fireworks *29(e)3B, **1.8 writes at least five rules for outdoor fire safety *26(e)3B

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Burn Prevention Education In Texas

Fifth Grade	Sixth Grade	Seventh Grade	Eighth Grade	Health	Economics
heating equipment safety; impact of fire on outdoor environment and methods to reduce that impact; first aid for burns; personal relationship to community fire safety	fire physics: electrical hazards and responding to those hazards; continuation of first aid for burns	responsible decision-making regarding fire and burn hazards, including peer pressure related to fire risks; preparation for and reaction to possible fire situations	technical aspects of fire hazards and detection; fire hazards outside the home	review of fire and burn prevention techniques and emergency actions; awareness of needs of all age groups; smoking and flammable liquids	awareness of adult responsibilities to preserve family, property and economy; preparation for maintaining one's own home; U.S history of fire and burn incidents
	lists types of heat and fuel to define classes of fire *25(g)2D, **3.1 describes fourth element of fire, uninhibited chemical reactions *25(g)4B, **3.1 describes three types of fire extinguishers *26(g)1H		defines and describes flash point, flash fire, flammability of construction and clothing types *44(b)7D		
analyzes product advertisements for fire and burn safety information *26(f)2A		analyzes product labels for fire safety, including flammable or combustible warnings, nonflammable labels *44(a)11C communicates hazards of smoking, using written, illustration or oral format *48(a)1D		identifies and describes cigarette health messages and writes cigarette fire safety messages *65(a)1A,1D,2A identifies and describes flammable liquid warnings on home-use products, cleaners, gasoline, etc. *65(a)1E	defines terminology relating to fire insurance and home safety (detectors, sprinklers, etc.) *69-4D
describes three classes of burns and first aid for each *26(f)1G,2D	classifies six types of burns by causes (contact, UV, chemical, etc.) *26(g)2D describes special first aid actions for burns other than contact burns *26(g)2D			lists best actions in suspected fire or smoke situations and first aid for three types of burns *65(a)1E	
explains hazards of heating equipment, including safety considerations such as UL inspection certification and proper placement *25(f)7B, 26(f)1H, **2.6 analyzes safety of alternative heating 25(f)6E, 26(f)1H), **2.6	describes why electricity and electrical appliances are fire and burn hazards, relating amount of energy used by various appliances to their risk *25(g)6D, **3.4		lists at least 10 typical hazards in the workplace, including industrial, retail and office *44(b)3	describes role of carelessness in fires and burn injuries, including cigarettes, heating and cooking *65(a)1B,1D,1G organizes and conducts comprehensive home inspection, including outdoors and nonliving areas *65(a)1B,1E,1G	describes the economic impact of fires and related casualties in the U.S. *69-1B,1G
conducts inspection of home heating equipment with parents to check for safe usage *25(f)7B, 26(f)1H, **2.6 gives examples of correcting holiday hazards *26(f)1H	develops holiday checklist that applies fire safety rules *25(g)7B, 26(g)1H,2C	writes at least 10 rules for smokers *44(a)11B,C describes safe practices with fire hazards commonly found in home or outdoors *44(a)11C develops and implements home survey instrument *44(a)11C	describes desire to be safe and to keep others safe *44(b)7D	organizes and conducts comprehensive home clean-up, including outdoors and nonliving areas *65(a)1B,1E,1G	describes fire and burn safety responsibilities of consumers and residents *69-1G,4A identifies hazard reduction efforts of various organizations, agencies *69-2A, 4B
evaluates school exit drill *25(f)2D,6A, 26(f)1H (relate to vol fd)	analyzes prepared maps of other locations to show appropriate detector placement *26(g)1H,2C draws map of home to scale to show smoke detector placement and home exit plan *25(g)7B, 26(g)1H,2C	describes or demonstrates what to do in unusual circumstances *44(a)11C,48(a)4I organizes an obstructed drill at school or home *48(a)4J	describes basic function of two types of smoke detectors *48(c)3D describes basic function of sprinklers, including residential fast response sprinklers *48(c)3D surveys and maintains smoke detectors at home *48(c)3D		lists types of building code requirements for detectors, sprinklers, exits *69-2A,4B,4D
describes hazards of intentional fires, especially relating to waste and loss of resources *29(f)2B		describes alternative behaviors to peer pressure related to firesetting and smoking *44(a)11A, 48(a)1D identifies arson as a crime *48(a)2L writes at least five rules for using matches and lighters *44(a)11B,C			explains effects of business fire on community and production *69-1B,1E
identifies hazard of false alarms, especially relating to wasting resources *29(f)2B	prepares time line in response to fire sighting and reporting *25(g)4E, 29(g)7A explains why to report smoke or suspected fire promptly *25(g)6D, 26(g)1H	describes how to discourage false alarms *44(a)11C,48(a)2L			
		outlines and details duties of baby-sitter *44(a)11C, 48(a)4I,J		describes general accident prevention and wellness needs of children, handicapped and senior citizens *65(a)1G,3E	describes fire and burn safety responsibilities of citizens in their roles as caregivers or providers *69-4A
describes role of volunteer fire department in the community *26(f)3A	describes professionals involved in emergency response and burn care *26(g)3A			describes at least five community health services and other resources that assist in community fire safety *65(a)3D	
describes impact of grass and tree fires on land forms *25(f)6E, **2.2 lists steps in safe procedures for burning debris and cooking on charcoal, campfire, grill *26(f)3B gives examples and application of cleaning trash and brush to reduce fire hazard *26(f)3B	describes dangers of high tension wires *26(g)1H, **3.4	lists comprehensive camping safety rules *44(a)4B	lists comprehensive rules for outdoor safety *44(b)7D investigates community laws on fireworks *44(b)7D	describes fire safety precautions related to gasoline, autos, outdoor tools and discarded cigarettes *65(a)1G	

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	Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade
* **Essential Elements** Current essential elements as defined by Chapter 75 of the Texas Education Code that apply: The student shall be provided opportunities to:	§75.25 (a) 1A. use comparisons: ... heaVcold. §75.25 (a) 3A. classify objects by comparing similarities and differences. §75.25 (a) 3C. arrange events in sequential order. §75.26 (a) 1C. recognize hazards in the environment and acquire knowledge and skills needed to avoid injuries and to prevent accidents. §75.26 (a) 1D. recognize negative effects of ... tobacco. §75.29 (a) 1A. identify examples of right and wrong behavior. §75.25 (a) 1B. discuss ways people can help each other. §75.29 (a) 1D. practice rules of safety. §75.29 (a) 1E. recognize safety symbols.	§75.25 (b) 2C. observe properties of objects, organisms, and events in the environment. §75.25 (b) 3B. classify objects, organisms, actions, and events from the environment according to similarities and differences. §75.25 (b) 4B. describe objects, organisms, and events from the environment. §75.25 (b) 4D. record data and interpret the arrangement of data on picture graphs, bar graphs, and maps. §75.25 (b) 5B. compare temperature of objects. §75.25 (b) 6D. draw conclusions from observed data. §75.25 (b) 7B. relate objects and activities to daily life. §75.25 (b) 7C. relate science to careers. §75.26 (b) 1C. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents. §75.26 (b) 1D. recognize negative effects of tobacco. §75.26 (b) 2B. recognize the health of the family depends upon contributions of each of its members. §75.26 (b) 3. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment. §75.29 (b) 4B. identify school and community rules (laws). §75.29 (b) 4C identify authority figures in ... community. §75.29 (b) 5A. know geographical location of home in relation to school and community.	§75.25 (c) 3B. classify matter and forces, organisms, actions, and events from the environment according to similarities and differences. §75.25 (c) 4B. describe objects, organisms, and events from the environment. §75.25 (c) 6A. predict the outcomes of actions based on experience or data. §75.25(c)7B. relate objects, science principles, and activities to daily life. §75.26 (c) 1C. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents. §75.26 (c) 2B. recognize the health of the family depends upon contributions of each of its members. §75.26 (c) 3A. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment. §75.29 (c) 1C. volunteer for leadership. §75.29 (c) 4A. identify some government services in the community. §75.29 (c) 6B. describe family traditions and customs.	§75. 25 (d) 8A. Use observations to form definitions of objects, actions, organisms, events, and processes. §75. 26 (d) 2B. recognize the health of the family depends upon contributions of each of its members. §75.25 (d) 6B. state generalizations about similarities and differences among objects, organisms, and events. §75.25 (d) 7A. compare and contrast objects, organisms, and events. §75.25 (d) 7B. relate classroom objects, science principles, and activities to daily life. §75.25(d) 3B. classify matter and forces, organisms, action, and events from the environment according to similarities and differences. §75.26 (d) 1D. practice general emergency procedures. §75.26 (d) 1E. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents. §75.29 (d) 2A. describe ways a community satisfies needs for food, clothing and shelter. §75.29 (d) 6B. describe how individuals and families change over time.	§75. 26 (e) 3B. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment. §75. 29 (e) 1A. accept the responsibilities of membership in various groups. §75.25 (e) 4B. describe objects, organisms, and events from the environment. §75.25 (e) 6A. predict the outcomes of actions based on experience or data. §75.25 (e) 7B. relate classroom objects, science principles, and activities to daily life. §75.25 (e) 8B. state relationships among objects, organisms, and events using operational definitions. §75.25 (e) 1F. practice general emergency procedures. §75.26 (e) 1G. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents. §75.26 (e) 2C. recognize the health of the family depends upon contributions of each of its members. §75.26 (e) 3A. recognize scope of services provided by community health agencies. §75.29 (e) 1C. explain how groups influence individual behavior.
** **Science Content** content from the sciences that shall be emphasized at the grade level shall include:		**Life Science** 1.1 basic needs and life processes. 1.6 ecology ... interdependence of living things. 1.7 application of life science to careers and everyday life.	**Earth Science** 2.9 human responsibility regarding earth science phenomena ... natural resources.	**Physical Science** 3.1 energy ... kinds of energy ... forms of energy ... sources of energy. 3.5 phases of matter: solids, liquid and gas. 3.6 structure of matter ... families of elements: metals and nonmetals....	**Life Sciences** 1.4 structure and function of ...e human body. 1.6 ecology ... interdependence of living things. 1.7 application of life science to careers and everyday life. 1.8 human responsibility regarding life science phenomena.

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Fifth Grade	Sixth Grade	Seventh Grade	Eighth Grade	Health	Economics
§75.25 (f) 2D. observe phenomena resulting from the life, earth, and physical sciences §75.25 (f) 6A. predict the outcomes of actions based on experience or data §75.25 (f) 6E. draw conclusions from observed data. §75.25 (f) 7B. relate classroom objects, science principles, and activities to daily life. §75.26 (f) 1G. identify ways to care for the principal body systems §75.26 (f) 1H. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.26 (f) 2A. recognize benefits and limitations of advertising as it relates to selection of health ... products §75.26 (f) 2D. recognize need for first aid §75.26 (f) 3A. identify locally available voluntary health agencies §75.26 (f) 3B. recognize interdependence of people and the environment, and recognize personal responsibility for protecting the environment §75.29 (f) 2B. explain why conservation of economic resources is important	§75.25 (g) 2D. observe phenomena and apply knowledge of theories, facts, and concepts from the life, earth, and physical sciences §75.25 (g) 4B. name and describe objects, organisms, and events from the environment §75.25 (g) 4E. record data and interpret the arrangement of data on graphs, tables, and other visuals §75.25 (g) 6D. form and state generalizations about similarities and differences among observed objects, organisms, events, and phenomena §75.25 (g) 7B. relate classroom objects, science principles and activities to daily life §75.26 (g) 1F. identify factors, including peer pressure, that contribute to ... tobacco ... abuse and methods of prevention §75.26 (g) 1H. recognize hazards in the environment, and acquire knowledge and skills needed to avoid injury and to prevent accidents §75.26 (g) 2C. recognize the health of the family depends upon contributions of each of its members §75.26 (g) 2D. identify basic emergency treatment §75.26 (g) 3A. relate the system of health services provided by government to the health needs of people §75.29 (g) 7A. make and interpret time lines	§75. 48 (a) 1D. recognize that individuals must accept the consequences of their decisions §75.44 (a) 11B. investigate the range of effects on personal health and safety from the use of ... tobacco §75.44 (a) 11C. discriminate between responsible and irresponsible choices that affect personal health §75.44 (a) 4B. describe ecological relationships in the environment §75.44(a) 11A. determine alternate courses of action when one is being pressured concerning use of ... tobacco §75.48 (a) 2L. support the rules and laws of one's school, community, state and nation §75.48 (a) 4I. develop criteria for making judgments §75.48 (a) 4J. use problem-solving skills	§75.44 (b) 3. classify objects or events according to similarities and differences §75.44 (b) 7D. contrast human activities that affect the natural environment §75.48 (c) 3D. analyze the impact of technological innovations on business, industry and agriculture (in U.S.)	§75.65 (a) 1A. understand the care of body systems and their functions §75.65 (a) 1B. relate personal behavior to wellness §75.65 (a) 1D. demonstrate responsible behavior concerning ... tobacco §75.65 (a) 1E. exhibit skills in accident prevention, injury control and emergency action §75.65 (a) 1G. identify components of comprehensive accident prevention programs §75.65 (a) 2A. analyze messages of advertising for health resources and activities §75.65 (a) 3D. describe the wide range of resources designed to protect and promote well-being of people §75.65 (a) 3E. investigate current health issues	§75.69 1B. analyze how supply and demand affect prices §75.69 1E. analyze the roles of economic incentives, voluntary exchange, private property rights and competition §75.69 1G. examine the roles of labor and consumers in the American free enterprise system §75.69 2A. understand how the government both protects and regulates the operations of the market system §75.69 4A. describe the rights and responsibilities of consumers §75.69 4B. identify ... agencies that provide consumer protection §75.69 4D. define basic consumer terminology in the areas of credit, insurance, budgeting and home ownership or leasing
Earth Science 2.2 geology ... agents of weathering, erosion and deposition. 2.6 meteorology ... effects of weather change and severe weather types ... effects of weather on human activities.	**Physical Science** 3.1 energy ... kinds of energy ... sources of energy ... transformation of energy from one form to another. 3.4 electricity and magnetism: charges, circuits, properties, electromagnetism, etc.				

Introduction

Introduction

Why teach fire and burn prevention?

Each year during the past decade, about 300 Texans have died in fires. The Texas Commission on Fire Protection is committed to reducing this alarming statistic. Analysis of fire statistics shows that the vast majority of fires — and the resulting fire deaths — could have been prevented. Regretfully, most people do not know or practice even simple actions that can prevent fires and burns.

The Texas Commission on Fire Protection believes the key to reducing fires and fire deaths is education. Fire safety education has traditionally been concentrated in elementary school observances of Fire Prevention Week. While these observances can produce effective results, thoughtful analysis of the fire problem and fire safety educational programs shows that more comprehensive, age-appropriate approach to fire safety education can multiply its benefits.

Recognizing the limits of classroom instruction time, the Texas Commission on Fire Protection has examined the Texas essential elements of instruction to determine the most appropriate topics with which to integrate fire prevention and fire safety. Teachers from across the state have provided feedback on topics appropriate for each grade level, kindergarten through high school.

The result of this extensive research is "Fire Safety for Texans," a series of curriculum guides teaching fire and burn prevention. Each grade-level program has been coordinated with essential elements in that grade and with the unique specific fire safety needs of that age group. The lesson plans have been field tested in classrooms across the state. On average, students who have been taught using these materials score 26 percent higher than students in control groups.

As you use this guide, you and teachers in other grade levels will be part of a continuum of fire safety education spanning all grades. The Texas Commission on Fire Protection believes this continuum will help created a generation of Texans who will be fire-safety aware. In turn, all Texans can benefit from a decrease in the number of needless fire deaths and an increase in safer homes and worksites — a benefit we all deserve.

This Booklet

This booklet, "A Lifetime for Fire Safety," is specifically designed for high school health students. The following sections give specific information on the essential elements applicable to fire and burn prevention and on the age-specific needs of ninth- and tenth-grade students related to fires and burns. You will also find additional information on the format and materials found in this booklet.

This booklet has three sections:

- **Lesson Plans.** This section includes all steps in the lesson cycle.
- **Teacher Materials.** This section includes all teaching aids and tests.
- **Student Materials — Duplicating Masters.** This section includes master copies of materials to be used by students.

General Objectives: To review comprehensive fire and burn prevention techniques and emergency actions

To develop an awareness of fire safety needs of all age groups

To focus on smoking and flammable liquids

Essential Elements: The student will be provided opportunities to:

Sec. 75.65 (a) 1A. understand the care of body systems and their functions

Sec. 75.65 (a) 1B. relate personal behavior to wellness

Sec. 75.65 (a) 1D. demonstrate responsible behavior concerning ... tobacco

Sec. 75.65 (a) 1E. exhibit skills in accident prevention, injury control and emergency action

Sec. 75.65 (a) 1G. identify components of comprehensive accident prevention programs

Sec. 75.65 (a) 2A. analyze messages of advertising for health resources and activities

Sec. 75.65 (a) 3D. describe the wide range of resources designed to protect and promote well-being of people

Sec. 75.65 (a) 3E. investigate current health issues

Background: Age Profile

Stage of identity vs. role confusion, which means the high school student needs experiences that will help establish his own identity. Lack of successful experiences may lead to confusion about his future role as an adult.

The teenager experiences variability in emotions, physical abilities and scholastic interests. She is becoming more concerned about sex roles and occupational

choice, and will begin thinking about careers and future.

While the high schooler desires to be independent, acceptance by peers is very important. He may be easily influenced by peer pressure and have a tendency to hero worship. The teenager may take risks and exhibit a tendency to test authority. She "tries on" different attitudes and actions.

As he becomes more proficient in formal operational thought, he is able to engage in mental manipulations. Thinking can be flexible, abstract and local. The high school student can apply his new thinking skills to many situations. Successful learning can take place through experience, hypothetical projections, role models, demonstrations, rehearsal and teaching others.

The teenager operates under a morality of cooperation. She views rules as mutual agreements and allows for intentions and extenuating circumstances.

Fire And Burn Hazards

Cigarette smoking, especially combined with drugs and alcohol.

Cooking — contact with stoves or other appliances; hot liquids or grease while serving or cooking food, including job-related.

Flammable substances — gasoline, including use in car, storage in garage, use to start fire; explosive chemicals.

Burn from mechanical equipment — burns from exhaust, radiator, battery or welding on cars or motorcycles; gasoline; mini-bikes and lawn mowers.

Clothing ignition from careless smoking or cooking. Smoke and gas inhalation from fire.

Outdoor hazards — utility poles and high-tension wires; sunburn; fireworks.

Teacher's Note On Materials: Illustrations and activity sheets in this booklet are intended to serve as masters. Photocopy, then use the photocopy as directed. Student pages may be compiled in booklets or distributed individually. The first page in the Student Materials section can serve as the title page for the student booklet.

Pre-Test and Post-Test: Conduct the pre-test prior to presenting the first lesson and the post-test following the fifth lesson.

Teacher's Note On Closure Activities: Several activities included in the closure phase of the lesson cycle may be effectively used in the next lesson's focus activity.

KEY TO ICONS: The following icons can be used to easily identify activities in the lesson plans:

Lesson objectives

Focus and closure

Creative group activity, including role playing

Lecture

Group problem-solving activity

Answering questions

Guest presenter

Investigation or research

Creative writing activity

Cut-and-paste activity

Group discussion

Drawing, artwork or illustration

Lesson Plans

LESSON ONE:

The Needs Of All Persons

Goal: *To review significant issues in fire safety, especially relating to personal responsibilities*

Objectives: The student will:

- describe role of carelessness in fires and burn injuries, including cigarettes, heating and cooking
- describe general accident prevention and wellness needs of children, handicapped and senior citizens

Materials: Pretests (p. 15-16); student booklet title page (p. 31; optional; see Teacher's Note on Materials, page 2); "Fire In Texas" overhead transparencies (p. 17-18) and student activity sheet (p. 34-35); "Analysis Of Fires In Texas" activity sheet (p. 36); notebook/writing paper; answer keys (p. 27-29).

Focus: Administer pre-test.

Introduce unit on fire safety. List objectives of unit:

- To review comprehensive fire and burn prevention techniques and emergency actions
- To develop an awareness of needs of all age groups
- To focus on smoking and flammable liquids

Outline lesson objectives (paragraph above). Ask students about their general opinions of the need for fire safety awareness. Discuss briefly.

Presentation Of Content: Display the first page of "Fires In Texas" overhead transparency. Have students examine graphs titled "Types of Fires Reported in Texas, 1991" and "Fire Deaths By Type Of Fire." Distribute student copies of "Fires In Texas 1991," then have students examine the two remaining graphs on the first page.

Discussion: Lead discussion on details of the graphs to the following conclusions:

- Although the largest number of fires occur outside, the largest number of deaths occur in building fires, most often in residential structures (homes).
- The two age groups most likely to die in fires are children under age 9 and adults over age 65.
- Handicapped persons may be limited in their abilities to react to a fire, as are many senior citizens. Therefore, they deserve the same attention as senior citizens in the area of fire safety. (Statistics on actual fire injuries to handicapped persons are not available.)
- Males are more likely than females to die in fires.

Display the second page of "Fires In Texas" overhead and have student look at their second pages. Lead discussion on "Fire Deaths Reported In Residences" to conclusion that although large apartment buildings have the potential for a large number of fire deaths, the vast majority of fire deaths occur in one-family homes.

Have students look at the remaining graphs, which include information on fire causes. Each chart relates the causes of fires to fire damages (death, injuries and property loss). Continue with guided practice activity.

Guided Practice: Distribute "Analysis of Fires In Texas" activity sheet. Have students read the names and descriptions of the causes. Lead students in examining the graphs and answering questions. Emphasize conclusion that many fires, perhaps most, could be prevented.

Independent Practice: *Opinion development and writing activity:* Have students prepare position papers or editorials advocating awareness of fire prevention. The papers must be based on one of these topics:

- The role of carelessness in causing fires and burns
- Reducing carelessness with cigarettes, heating equipment and cooking appliances
- Fire safety needs of children, handicapped persons and/or senior citizens

The paper must include at least two specific supporting examples (statistics, anecdotes, etc.) presented during the lesson; additional research is not required. Evaluate papers on validity of the examples and their relationship to the position taken. Papers that do not support fire safety awareness are not acceptable.

Reteaching: Have students prepare logs or diaries of daily activities relating to personal habits in smoking, cooking or operating heating equipment. Review logs or diaries, and note activities that could cause fires or burns.

Enrichment: Have students prepare plans for assisting child(ren), handicapped or senior citizen in the their families or neighborhoods.

Submit position papers or editorials for publication in school or city newspaper.

Closure: Have three students describe the basic premise of their papers, each reflecting a different topic. Ask student which age groups merit the most attention in fire safety (young children and seniors).

Introduce the next lesson by telling student that many types of resources and fire-safety aids are available and that the next lesson will begin an exploration of some of those resources.

LESSON TWO:

Special Problems

Goal: *To focus on special fire safety problems, especially those relating to young adults*

Objectives: The student will:

- identify and describe flammable liquid warnings on home-use products, cleaners, gasoline, etc.
- describe fire safety precautions related to gasoline, autos, outdoor tools and discarded cigarettes

Materials: "Product Labels" (p. 19) and "Warning Labels" (p. 20) overhead transparencies; "Product Warning Labels" student information sheet (p. 37); "Problem Cards And Suggested Solution Cards" (p. 21); "Product Warning Labels" research activity sheet (p. 38); answer keys (p. 27-29).

Focus: Review basic information from Lesson One, focusing on the value of fire prevention efforts.

Display Product Label overhead transparency. Have students list some ways that companies try to persuade consumers to buy and use the products. Ask whether any of the products are dangerous. Outline lesson objectives (see paragraph above).

Presentation Of Content: Add Warning Label transparency to match to product labels. Tell students that electrical appliances also have warning labels regarding fire and electrical shock prevention. Discuss the value of warning labels and the importance of following the warnings exactly. Ask why a flammable liquid must be stored with the lid tightly closed (to prevent the flammable vapors from escaping and possibly being exposed to a flame or spark and igniting).

Group discussions: Divide students into five groups, and assign one product and warning label to each group. Have the groups discuss their personal awareness of the product warnings and their personal reactions to the warnings.

Guided Practice: *Group problem-solving activity:* Assign each group one problem card. Have each group select a reporter to record their activities. Have the students answer the questions and prepare possible solutions. When each group has reached a conclusion, distribute the Suggested Solution card and have students compare their solution to the suggested solutions.

Group reports and whole-class activity: Have the group reporters present their conclusions to the entire class. Allow students to discuss disagreements with the suggested solutions.

Independent Practice: *Investigation:* Distribute Product Warning research activity sheets. Have the students research products in their homes.

Optional: Have students meet in their groups and compile group reports.

Reteaching: Have students explain why relocation of flammable products (gasoline, paint thinners, cleaning fluids, etc.) might be necessary. Include a discussion of what might happen if flammable products are not handled properly.

Enrichment: Have students prepare graphs of the number and types of products with flammability warning labels stored at home. Additional suggestion: prepare pictorial graph showing locations of flammable products in home.

Closure: If appropriate, post group reports. Have students review and restate the major types of warnings. Re-emphasize that flammable liquids should be stored in tightly-closed containers.

Introduce next lesson by telling students that they will be conducting special activities that can make their homes safer today and in the future.

LESSON THREE:

Taking Charge

Goal: *To apply fire safety knowledge by conducting a home fire hazard inspection and clean-up*

Objectives: The student will:

- organize and conduct comprehensive home inspection, including outdoors and non-living areas
- organize and conduct comprehensive home hazard removal or clean-up, including outdoors and non-living areas

Materials: "Home Inspection Worksheet" activity sheets (p. 39); "Home Inspection Checklist" activity sheets; (p. 40-41); answer keys (p. 27-29).

Focus: Ask students if they have ever thought of themselves as leaders in their homes. Discuss what responsibilities a leader has and how they might be leaders in fire safety. Tell them that two activities in this lesson will give them an opportunity to serve as leaders for their families. Outline lesson objectives (paragraph above).

Presentation Of Content: *Discussion:* Review information from previous lessons on the various types of fire hazards found in the home. Discuss how the knowledge of fire hazards can be applied to making the home more safe (Accept all reasonable answers, such as changing habits in cooking or smoking, properly discarding old flammable liquids, etc.). Lead discussion on the value of a comprehensive inspection to check for fire hazards and the role of fire safety inspectors.

Guided Practice: *Group solution-synthesis activity:* Divide the students into six groups (you may wish to vary groups from previous lesson to encourage student interaction). Assign each group one of the following areas of the home: bedrooms, living areas (den, living room, family room), bathrooms, kitchens, garage and workroom, outdoors. Distribute Home Inspection worksheets to the respective groups.

Have students complete the worksheets, then combine their results to develop an overall inspection plan. Compare to the Home Inspection checklist published by the Texas Commission on Fire Protection. Note any items that the students included that are not on the Texas Commission on Fire Protection checklist.

Discuss how the students can get their parents/guardians and other family members interested in conducting fire hazard inspections in their homes. Have the students list ways that they can ask their parents to help them conduct inspections and remove hazards.

Independent Practice: *Investigation with family participation:* Distribute Home Inspection Checklists. (To increase student participation, you may wish to reproduce the student-prepared list, adding items from the Texas Commission on Fire Protection list that were omitted on the student list.) Ask the students to work with their parents or other adults in the home to look for fire hazards and clean-up or remove any problems. Remind the students that many items included on the checklist are very dangerous and that their parents must be involved in this activity.

Talk privately with any student who seriously indicates that an adult may not be available. Encourage the student to look for fire hazards, but to avoid touching or moving any dangerous item.

Evaluate the students on their willingness and interest in this activity. Grading based on the inspection itself (such as, number of problems found or corrected) is discouraged.

Reteaching: Have a school safety professional talk to the students about how the school cooperated with the local fire marshal for building safety inspections. The talk should focus on the value of working together for the safety of the students. The safety professional may include information on things that students do that create hazards. Discussion of past "building code violations" should be avoided.

Enrichment: Have students research the purpose of building codes and fire codes. Additional suggestion: research local building and fire codes (sources: local fire marshal, building inspector, city administrator.)

Closure: Have students share some results of their home hazard survey. Include information on the kinds of hazards that were corrected. Have students — without looking at their surveys — list some of the items on the checklist. Encourage them to keep their checklists for future use. Ask students who had parent and/or family participation how they felt about having a leadership role in their family.

Introduce next lesson by telling students that their study of fire safety will continue a close look at what to do if a fire or burn does occur.

LESSON FOUR:

Helping Others

Goal: *To explore how individuals and organizations can contribute to fire and burn safety*

Objectives: The student will:

- describe best actions in suspected fire or smoke situations and first aid for three types of burns
- list at least five community health services and other resources that assist in community fire safety

Materials: "Fire and Burn Scenarios" role-playing activity cards (p. 22); "Not Just Acting" observation activity sheets (p. 42); "Helping Others" activity sheets (p. 43); answer keys (p. 27-29).

Focus: Describe an exciting emergency scene from a movie or television show, perhaps from re-creations on the national "Rescue 9-1-1" or local "Crime Stoppers" programs. Ask how students feel when they see those re-creations. Remind them that those scenes frequently involve actors, but that if they are ever in an emergency situation they won't be able to rely on actors — they'll have to act for themselves.

Introduce lesson by telling students that they will be actors for several role-playing activities that will give them an opportunity to act out proper responses to emergencies. Outline lesson objective (paragraph above).

Presentation Of Content: *Role-playing activity and observation:* Distribute role-playing activity cards "Fire and Burn Scenarios" to selected students and "Not Just Acting" observation activity sheets to all students. Based on roles assigned and described, have students demonstrate reactions to various emergency situations. Note: In all scenarios, person A acts or speaks first, followed by person B. Have students observe the activities and write down their observations on their "Not Just Acting" observation activity sheets.

Guided Practice: *Continue role-playing activity:* To facilitate transfer and application of information, have additional students present un-cued responses.

Follow-up discussion: Following demonstration on service organizations, discuss other types of agencies or organizations in the community that could provide support for fire prevention, fire survival, etc.

Independent Practice: *Complex problem-solving activity:* Distribute "Helping Others" activity sheets. Have students complete the flow charts to show appropriate actions and/or interactions with community health services in emergency scenarios.

Reteaching: Invite a fire department representative to discuss how the fire department interacts with other agencies, such as the Department of Health, burn centers and Salvation Army.

Enrichment: Have students research consumer-safety organizations such as Underwriters Laboratory and the Consumer Product Safety Commission.

Closure: Review selected questions from "Helping Others" activity sheets. Ask students how they felt about the various scenarios at the beginning of the lesson. Have them compare to how they would feel about actually using those actions in an emergency situation now. Review the three degrees of burns and appropriate first response for each.

Introduce Lesson Five by telling students that they will organize their own community service group to conduct the final lesson of the unit on fire safety.

LESSON FIVE:

Smoking Safety

Goal: *To focus on eliminating or reducing the hazards of cigarette smoking*

OBJECTIVES: The student will:

- identify and describe cigarette health messages
- write cigarette fire safety messages

Materials: "Careless Smoking Fires" overhead transparency (p. 23) and background information sheets (p. 44); "Public Service Announcements" overhead transparency (p. 24) and background information sheets (p. 45); materials for creative work (writing paper, drawing paper and supplies, tape recorders, etc.); answer keys (p. 27-29).

Focus: Review information from Lesson Two on product warning labels, including the value of product safety messages. Briefly review what kinds of messages companies use to persuade consumers to purchase and use products. Tell them that in this lesson they will create their own persuasive messages. Outline objectives (paragraph above).

Presentation Of Content: Distribute "Careless Smoking Fires" background information sheets. Display overhead transparency, if desired. Read and discuss statistics and anecdotes. Lead discussion to the conclusion that cigarette smoking creates a fire hazard. Emphasize hazard of smoking in bed.

Read and discuss cigarette health warning labels and their purpose to inform about health hazards. Discuss types of information that might be included in cigarette fire safety warning labels.

Guided Practice: *Group brain-storming activity:* Introduce problem-solving activity based on students as an advocacy group. Discuss the purpose of the group. Note that this group does not have to be anti-smoking, although some may choose that position. Encourage some groups to focus on how people who won't stop smoking can be more safe.

Divide the students into small groups (two to six people). Have the student develop persuasive statements advocating placement of fire safety messages on cigarette packages. Hint: Give students three minutes to jot down ideas before beginning group discussion.

Independent Practice: Distribute "Public Service Announcements." Briefly discuss the purpose and application of public service messages.

Creating original, persuasive material: In small groups, have students prepare public messages. They may select from the following:

- Public service announcement that might be read on the radio.
- Public service announcement for television.
- Fire safety warning messages for cigarette packages
- Advertisement or short article for newspaper or magazine.

Encourage students to critically review their work and rewrite to optimum effectiveness. They may find it productive to ask other students' opinions of their materials during the draft process.

Reteaching: Have the students participate in role-playing activities focusing on peer pressure and hazardous behavior. Examples: throwing cigarette butts out of car windows; climbing electrical poles; smoking while pumping gasoline, working on the car or using flammable liquids, especially paints and paint thinner.

Enrichment: Have students research one of the other major causes of fires and fire deaths:

- Careless cooking
- Heating equipment, including portable heaters, central heating systems, water heaters
- Arson

The research report might include a description of the cause and the number of fires, fire deaths and dollar value of property loss. An analysis of how the type of fire occurs might also be included.

Closure: Have student groups present and/or display their cigarette fire safety messages. Conclude with a general discussion of the content of the unit and the students' personal reflections on fire safety.

Administer post-test.

Teacher Supplemental Materials

Name _____

Health (High School): **A Lifetime For Fire Safety** PRE-TEST

Circle True or False.

1. Most fires are purely accidental and cannot be prevented. **True** **False**

2. Simply being more careful with fire hazards can reduce the chance of having a fire. **True** **False**

3. Smokers can smoke in bed as long as they are very careful. **True** **False**

4. A fire will start right away if a cigarette falls on upholstered furniture, like a sofa. **True** **False**

5. Smokers need to be more careful about fire safety than non-smokers. **True** **False**

6. Smoking near flammable liquids is very dangerous. **True** **False**

7. Gasoline is a flammable liquid. **True** **False**

Give the best answer:

8. Name the two age groups that suffer the largest number of fire deaths:

_____ and _____

9. How can flammable liquids be easily identified? _____

10. How should flammable liquids be stored? _____

11. Name a community resource (person, agency, organization, etc.) that can help after a fire or to prevent a fire, other than a fire fighter: _____

12. List how to identify each type of burn and appropriate actions for each:

	How to identify	**Appropriate action**
First degree	_____	_____
Second degree	_____	_____
Third degree	_____	_____

13. What should you usually do first in each of the following situations?

Clothes on fire _____

See smoke coming from a house _____

Hear smoke alarm while sleeping _____

(continued)

Teacher: Use with Lesson One, Page 7. Duplicate for student use.

Complete the following lists with appropriate examples:

14. Gasoline is very flammable and should not be stored in the home. Name three types of flammable liquids (other than gasoline) that are more commonly found or used in the home:

_____

_____

_____

15. Name three types of appliances that are frequently involved in fires:

_____

_____

_____

16. List 10 items that should be included in a home fire hazards inspection:

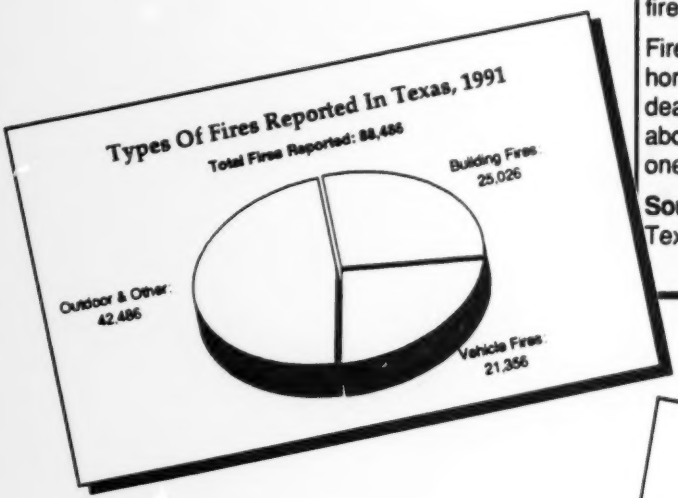
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

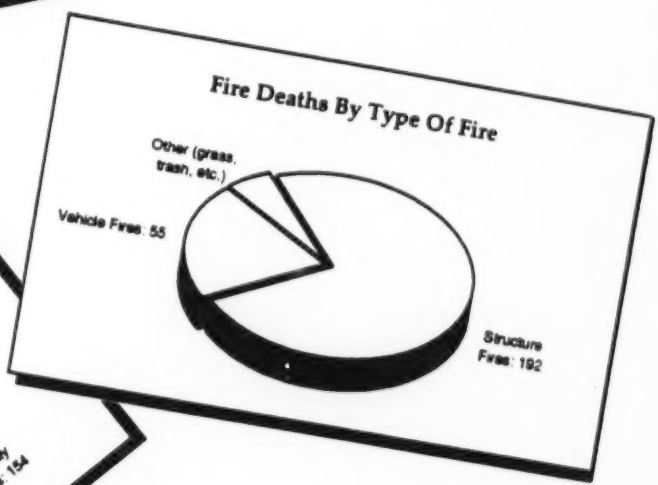
Fires In Texas 1991

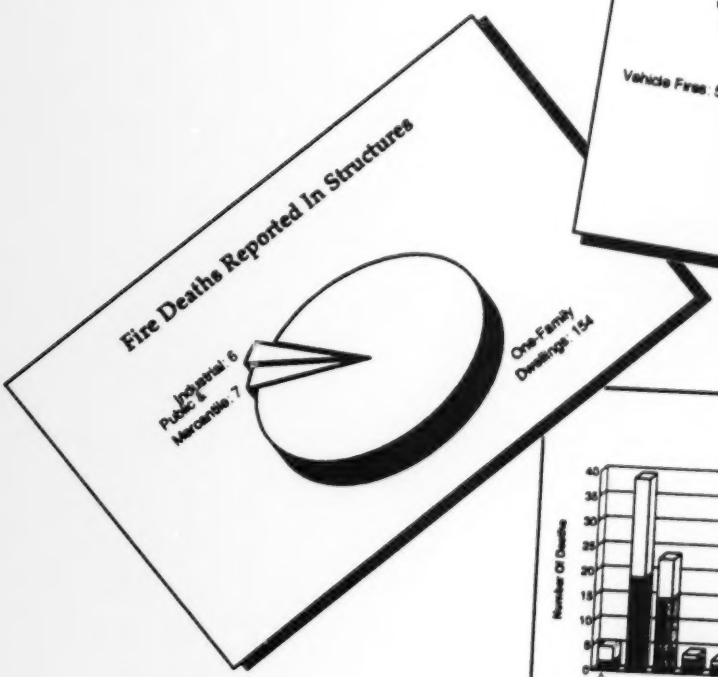
The graphs on these two pages describe the fire problem in Texas. They reflect the number of fires that occurred in 1991. They also provide details about the victims of fire and the general causes of fires.

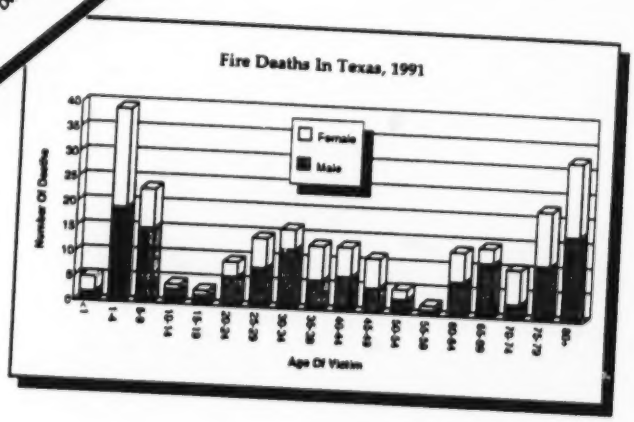
Fire experts frequently concentrate on fires in the home. Each year, approximately 80 percent of all fire deaths occur in buildings. Out of those fire deaths, about 75 percent occur in homes, most commonly in one-family homes.

Sources: Texas Fire Incident Reporting System and Texas Department of Health.


Types Of Fires Reported In Texas, 1991
Total Fires Reported: 88,486
Building Fires: 25,026
Outdoor & Other: 42,486
Vehicle Fires: 21,356

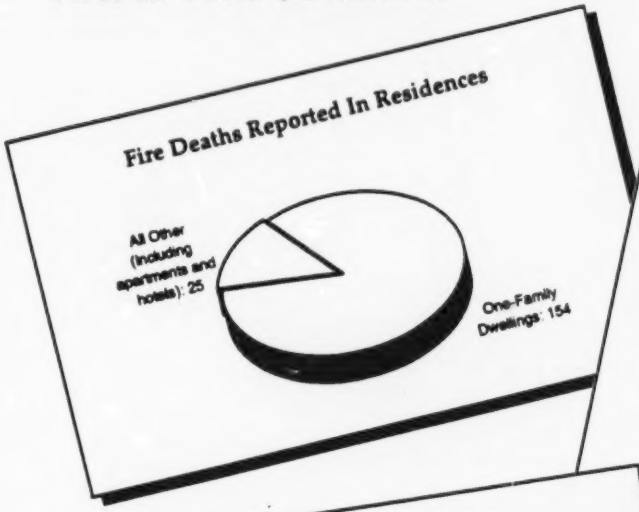


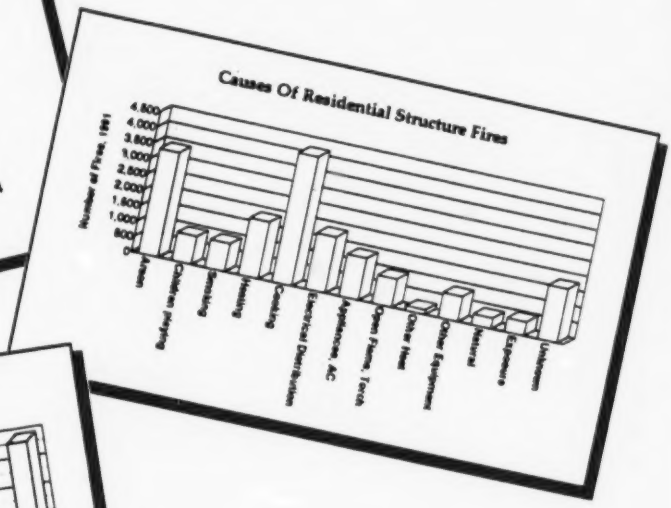


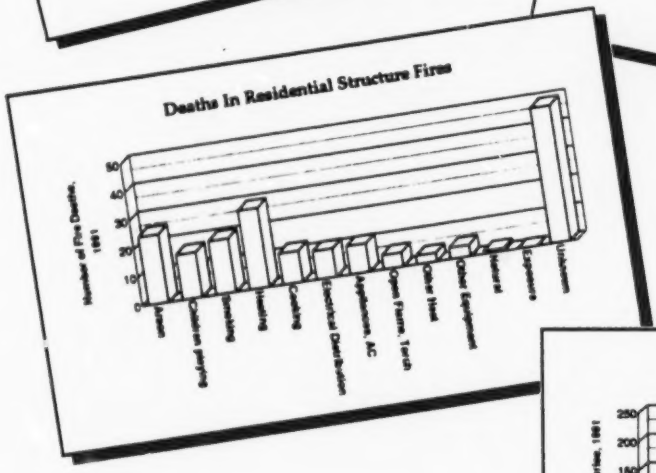


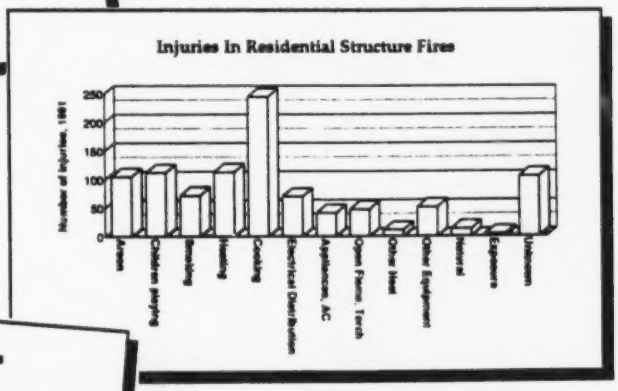
Teacher: Use with Lesson One, Page 7. Transfer to overhead transparency.

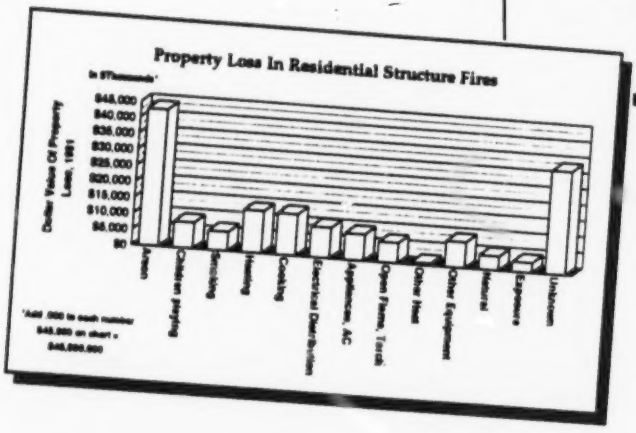
Fires In Texas (continued)











Fires in Texas 1991

Teacher: Use with Lesson One, Page 7. Transfer to overhead transparency.

Product Labels

DISINFECTANT SPRAY

ELIMINATES ODORS

KILLS HOUSEHOLD GERMS, MOLD AND MILDEW

Polyurethane

Liquid Plastic

Super Gloss

DANGER!
COMBUSTIBLE.
HARMFUL OR FATAL IF SWALLOWED.
Read complete precautions on back panel.

HYPO-ALLERGENIC

LIQUID HAIR SPRAY

Extra Hold

USED BY PROFESSIONALS

INTERIOR/EXTERIOR ENAMEL

SPRAY PAINT

DANGER: EXTREMELY FLAMMABLE, CAN PRESSURIZED. HARMFUL OR FATAL IF SWALLOWED, VAPOR HARMFUL.
Read Caution Details on Back Panel Before Using.

SPRAY STARCH

- **BODY WITHOUT STIFFNESS**
- **SPRAYS ON EVENLY**
- **EASIER AND FASTER**

Teacher: Use with Lesson Two, Page 8. Transfer to overhead transparency

Warning Labels

PHYSICAL HAZARDS:

Flammable: *Contents under pressure. Do not use near fire, sparks or flame. Do not puncture or incinerate container, exposure to temperatures above 130° F may cause bursting. Do not use on polished wood furniture, rayon fabrics or acrylic plastics.*

DANGER! CONTAINS MINERAL SPIRITS. COMBUSTIBLE. HARMFUL OR FATAL IF SWALLOWED. Keep away from heat and open flame. Avoid contact with skin, eyes and clothing. Avoid breathing of vapors.
To avoid spontaneous combustion, soak oily cloths and rags in water after use or place in closed metal container away from buildings and combustible materials.

Warning: Flammable.
Avoid fire, flame or smoking while handling and until hair is fully dry. Avoid spraying near eyes. Keep out of reach of children.

CAUTION:
KEEP OUT OF REACH OF CHILDREN.
DO NOT INCINERATE (BURN) CAN.
AVOID HEAT. KEEP CAN BELOW 120°F.
High temperature may cause bursting. Do not place can on radiator, stove, in direct sunlight or near other heat sources.
DO NOT PUNCTURE CAN. Contents under pressure will discharge.
AVOID OPEN FLAMES, SPARKS, PILOT LIGHTS. DO NOT SMOKE. Vapor may ignite explosively.

CAUTION: Use only as directed. Do not take internally. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F. Do not use near flame. Avoid spraying on hard-surface floors as residue could make them slippery.
KEEP OUT OF REACH OF CHILDREN.

Teacher: Use with Lesson Two, Page 8. Transfer to overhead transparency.

Problem Cards and Suggested Solution Cards

Group Problem-Solving Activity

Problems	Suggested Solutions
❶ You discover that many paints, solvents and cleaning solutions are stored in a cabinet over the stove. What should you do? What should you do about flammable products that must be used in the kitchen, such as cooking oil?	❶ Inform your parents. Help them locate safer storage places away from heat. Use flammable products such as cooking oil with great care. Always follow directions, and never leave cooking unattended.
❷ Your parent is building a bookcase, using a power saw outdoors. What can you do to help him/her be safe? After painting the bookcase using enamel paint (which is flammable), your parent puts the paint brushes, paint, paint thinner and dirty rags in a closet near the water heater. What should you do?	❷ Remind your parent to read (or re-read) the directions for the power saw before using. Never use near water or while raining. Unplug when not in use. Tell your parent about the danger of fire. Help them locate a safe storage place for the paint and cleaner. Properly clean the brushes. Safely throw away the dirty rags.
❸ Your friend is smoking a cigarette while pumping gasoline in her car. What should you? Another friend carries a half-full container of gasoline in his car for emergencies. What should you do?	❸ First have her move away from the gas pumps. Then make her put out the cigarette completely and then throw in a trash can away from the gas pumps. Remind him how flammable and dangerous gasoline is. Have him take the gasoline out of his car and store safely away from any buildings.
❹ You are planning a party at your home. Some of your friends smoke. What should you plan to do to prevent a fire? During the party, you plan to cook out on a gas grill. What safety rules should you follow?	❹ Have large ashtrays available. Watch anyone who smokes to make sure cigarettes or ashes don't fall on furniture. Don't allow smoking while drinking. Carefully check all furniture for smoldering cigarettes before leaving or going to sleep. Re-read the directions for the grill. Never leave the grill unattended while cooking. Don't smoke near the grill. Be sure all controls are turned off completely when finished cooking.
❺ In your bathroom, you will probably find several warning labels. What kinds of items might they be? What should you do with these items?	❺ Hair dryer, electric shaver, electric curlers (electrical shock warning); hair spray, cologne, after shave lotion, alcohol (flammable product warning). You should do exactly what the label directs. You should find safer storage places for flammable products whenever possible.

Teacher: Use with Lesson Two, Page 8. Copy, cut apart and distribute to student groups.

Fire and Burn Scenarios

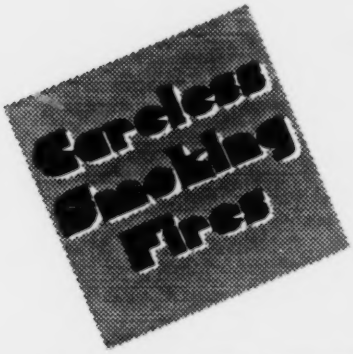
Role-Playing Activity Cards

Scene 1: Planning for fire emergencies **Student A:** Tells B that a news story about a fire has her worried: "How do we know what to do in a fire. We don't even have a fire alarm." **Student B:** Tells A that having a fire escape plan will help; tells her to make plan that gives everyone two ways out of each room and sets up a meeting place away from the house. Tells her to get a fire alarm and check it each month.	**Scene 2: Hearing a smoke alarm while sleeping** **Both:** Pretend to be sleeping **Student A:** Hears a smoke alarm, wakes B. **Student B:** Tells A they need to crawl out under any possible smoke. **Both:** Crawl out of room, go to neighbor's house, call 9-1-1 (or local emergency number) and report fire at (insert address).
Scene 3: Cooking pan catches fire **Student A**: Pretends to be cooking; pan catches fire **Student B:** Tell A to put a lid or large cookie sheet over the top of the pan. **Student A:** Puts on lid; fire goes out.	**Scene 4: First-degree burn on hand** **Student A:** Pretends to be ironing; burns hand. **Student B:** Makes A put hand under cool running water. Notes that it is red but has no blisters, so it's a first-degree burn.
Scene 5: Second-degree burn on arm **Student A:** Pretends to be working on car; touches arm against the hot engine and has a burn. **Student B:** Makes A put arm under cool running water. Notes that it is red and blistery, so it must be a second-degree burn. Bandages with sterile bandage. Suggests they go to doctor's office or emergency room.	**Scene 6: Third-degree burn on leg** **Student A:** Pretends to be starting a gas grill. Pants catch on fire. **Student B:** Makes A roll on the ground to put out fire. Notes that the burn is gray and dry, so it must be a third-degree burn. Calls 9-1-1 (or local emergency number).
Scene 7: Help after a fire **Student A:** Tells B that a neighbor had a fire and doesn't have a place to live. Also a child had severe burns and the everyone is very worried. **Student B:** Tells A that the local Red Cross has a program to help and that the fire department can give them other references for help. Special hospitals, like the Shriners Burn Center, are designed to treat burn patients; even local hospitals have burn units and they can help find special groups to help the family.	**Scene 8: Learning about fire safety** **Student A:** Tells B that he is concerned about his grandparents and several other senior citizens in their neighborhood because they seem to be unaware of fire hazards and can't get around well. **Student B:** Tells A to call the fire prevention office of the fire department; they can put on a special presentation to tell them about fire safety and can even help them install smoke alarms, make an escape plan and check for fire hazards.

Teacher: Use with Lesson Four, Page 10. Copy, cut apart and distribute to student groups.

Careless-Smoking Fires

Background Information



During 1991, 16 people died in 13 house fires caused by careless smoking. Generally, a fire listed as a "careless-smoking" fire starts when someone, sometimes even the victim himself, did not dispose of cigarettes or matches properly.

Careless Smoking In Living Rooms

Twelve people died in nine fires that started in living rooms. Among those fires, only one home had a working smoke detector.

The victims were:

- † Males, age 6, 26, 33, 38, 60, 65 and 70.
- † Females, age 23, 38, 63 and 90.

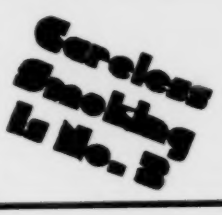
Careless Smoking In Bedrooms

Four people died in four different fires that started in bedrooms. Common starting locations: bedding (sheets and blankets)

The victims were:

- † Males, age 39 and 68.
- † Females, age 68 and 74.

Among the known causes of fatal fires in one- and two-family dwelling, careless smoking ranked third in number of deaths. Only arson and heating-related fires caused more deaths.



The U.S. Surgeon General's Office requires health warning labels on cigarette packages and in cigarette advertising. Here are examples of those warning labels.

SURGEON GENERAL'S WARNING: Quitting Smoking Now Greatly Reduces Serious Risks to Your Health.

SURGEON GENERAL'S WARNING: Smoking By Pregnant Women May Result in Fetal Injury, Premature Birth, And Low Birth Weight.

SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.

SURGEON GENERAL'S WARNING: Cigarette Smoke Contains Carbon Monoxide.

Teacher: Use with Lesson Five, Page 11 Transfer to overhead transparency.

Public Service Announcements

Background Information

Public service announcements (PSAs) are messages that promote a cause or provide information. Some PSAs appear in magazines and newspapers. Others appear on television and radio stations. You can recognize a PSA by the words "A public service of this station (or the publication)" or a similar phrase.

SHARING IS CARING
Growing.
AT 10:26 A.M. SANDY HARDWICK BROUGHT HER 57-YEAR-OLD CARDIAC PATIENT BACK TO LIFE.
WHAT DID YOU ACCOMPLISH THIS MORNING?
If you're not satisfied with your answer, maybe you should be looking for a more satisfying career. For more information, call us at 1-800-962-NURSE.
IF CARING WERE ENOUGH, ANYONE COULD BE A NURSE.
Growing.
CHECK YOUR HOT SPOTS
With proper use, portable electric space heaters provide warmth and comfort. But space heaters need their space. They aren't drying racks or toasters! Keep anything combustible at least three feet from an electric space heater.
If you have questions, ask the fire department. Fire prevention is their mission. Make it yours too!
A message from the pinkerton and the U.S. Fire Administration
FIRE strikes back
Ouch!
Fire burns. And matches and lighters make small fires that become big fires very quickly. Keep yourself from getting burned. Stay away from matches and lighters because
FIRE STRIKES BACK!
Gone.
Only you can prevent forest fires
A public service of the U.S.D.A. Forest Service, and your State Forester

Teacher: Use with Lesson Five, Page 11. Transfer to overhead transparency.

Name _____

Health (High School): A Lifetime For Fire Safety **POST-TEST**

Circle True or False.

1. Most fires are purely accidental and cannot be prevented. **True** **False**
2. Simply being more careful with fire hazards can reduce the chance of having a fire. **True** **False**
3. Smokers can smoke in bed as long as they are very careful. **True** **False**
4. A fire will start right away if a cigarette falls on upholstered furniture, like a sofa. **True** **False**
5. Smokers need to be more careful about fire safety than non-smokers. **True** **False**
6. Smoking near flammable liquids is very dangerous. **True** **False**
7. Gasoline is a flammable liquid. **True** **False**

Give the best answer:

8. Name the two age groups that suffer the largest number of fire deaths:

_____ and _____

9. How can flammable liquids be easily identified? _____

10. How should flammable liquids be stored? _____

11. Name a community resource (person, agency, organization, etc.) that can help after a fire or to prevent a fire, other than a fire fighter: _____

12. List how to identify each type of burn and appropriate actions for each:

	How to identify	**Appropriate action**
First degree	_____	_____
Second degree	_____	_____
Third degree	_____	_____

13. What should you usually do first in each of the following situations?

Clothes on fire _____

See smoke coming from a house _____

Hear smoke alarm while sleeping _____

(continued)

Teacher: Use with Lesson Five, Page 11. Duplicate for student use.

Complete the following lists with appropriate examples:

14. Gasoline is very flammable and should not be stored in the home. Name three types of flammable liquids (other than gasoline) that are more commonly found or used in the home:

_____

_____

_____

15. Name three types of appliances that are frequently involved in fires:

_____

_____

_____

16. List 10 items that should be included in a home fire hazards inspection:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

ANSWER KEY-1

Name _____

Health (High School): A Lifetime For Fire Safety PRE-TEST POST-TEST

Circle True or False.

1. Most fires are purely accidental and cannot be prevented. True (False)
2. Simply being more careful with fire hazards can reduce the chance of having a fire (True) False
3. Smokers can smoke in bed as long as they are very careful True (False)
4. A fire will start right away if a cigarette falls on upholstered furniture like a sofa True (False)
5. Smokers need to be more careful about fire safety than non-smokers (True) False
6. Smoking near flammable liquids is very dangerous (True) False
7. Gasoline is a flammable liquid (True) False

Give the best answer:

8. Name the two age groups that suffer the largest number of fire deaths

young children and senior citizens

9. How can flammable liquids be easily identified? warning labels

10. How should flammable liquids be stored? tightly closed, away from heat

11. Name a community resource (person, agency, organization, etc.) that can help after a fire or to prevent a fire, other than a fire fighter. Red Cross, Salvation Army, city or state social service agency

12. List how to identify each type of burn and appropriate actions for each

	How to identify	Appropriate action
First degree	red	cool with running water
Second degree	red and blistery	cool with water, see doctor
Third degree	dry and gray	call 9-1-1 (or local EMS)

13. What should you usually do first in each of the following situations?

Clothes on fire drop to ground, roll over and over

See smoke coming from a house call 9-1-1 (or local emergency no.)

Hear smoke alarm while sleeping crawl low under smoke, outdoors to meeting place

Teacher: Use with Lesson Plan, Page 11. Duplicate as student use.

Complete the following tests with appropriate examples:

14. Gasoline is very flammable and should not be stored in the home. Name three types of flammable liquids (other than gasoline) that are more commonly found or used in the home

paints paint thinner/solvent
hair spray cooking oil (Other reasonable
cleaners lighter fluid answers may be accepted.)

15. Name three types of appliances that are frequently involved in fires

cooking equipment
heating equipment
power tools

16. List 10 items that should be included in a home fire hazards inspection

1. See list on Page 40-41.
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Name _____

Analysis of "Fires in Texas 1991"

Data Analysis Activity Sheet

Arson: Officially called "incendiary" or "suspicious." Evidence proves the fire was intentionally set, or circumstances indicate the fire may have been set on purpose.

Children playing: The fire was caused by a child or children playing with matches, lighter or other type of heat source (such as, flame in a heater or hot heating element on a stove).

Smoking: The fire was the result of someone smoking. Examples: falling hot ashes or cigarette butts fall on furniture, not completely putting out a cigarette before putting in a trash can, and smoking in bed.

Heating: The fire started with heating equipment, including central heating systems, local heating equipment (including portable heaters, wall heaters, fireplaces) and water heaters.

Cooking: The fire started with food or grease, usually not unattended in a pan or hot cooking appliance.

Electrical distribution: The fire started in electrical wiring, circuit boxes, switches or similar equipment within the structure itself. Does not include extension cords.

Appliances, AC: The fire started in an appliance, including central and room air conditioners. Includes kitchen equipment (unless food caught fire first), hair dryers and other personal appliances, and power tools.

Open Flame, Torch: The fire was caused by an open flame not associated with any other specified equipment. Most common: matches, lighters, welding and cutting torches.

Other heat: A source of heat not associated with any other specified equipment started the fire.

Other equipment: The fire was caused by equipment not specified in other groups. Most commonly includes industrial or special-use equipment.

Natural: The fire was caused by natural events, most commonly lightning.

Exposure: The fire started as a result of a nearby fire. Most commonly occurs in adjoining buildings.

Unknown: Based on available evidence, the cause of the fire cannot be determined.

Using the graphs in "Fires in Texas, 1991," answer the following questions about fires in homes.

Reasonable variation in estimates are acceptable.

1. What caused the largest number of fires? cooking
   About how many fires? over 4,000
2. What known causes placed second and third in the number of fires in home? arson, heating, electrical distribution
3. What type of fire caused the largest number of deaths? heating
   About how many deaths? 39
4. What known causes placed second and third in the number of deaths? arson, smoking
5. What known fire causes placed first, second and third in the number of fire injuries? cooking, heating, children playing
6. What known fire causes placed first, second and third in the amount of dollar loss caused by fires? arson, heating, cooking
7. Based on this information, what three types of fires do you think Texans should be concerned about? Accept reasonable answers. Suggested: arson, cooking, heating
8. Do you think that fires will be reduced if everyone is more careful with fire hazards (things that can cause fires, such as cigarettes, heaters and cooking equipment)? Why? Accept reasonable answers.

Teacher: Use with Lesson Plan, Page 7. Duplicate as student use.

Name _____

Product Warning Labels

Investigation Activity Sheet

Look around your home. What flammable products are kept there? What suggestions do you have for storing these items safely?

Examples

Fancy Hands	Hair spray	Bathroom cabinet	None
Zip-Ease	Paint stripper	Cabinet under kitchen sink	Metal cabinet in storeroom

Kitchen

Accept reasonable answers. Common hazards are listed.		
Flammable liquids and sprays		Enclosed cabinet away from heat

Bathroom

Flammable sprays, colognes, alcohol, polish remover		Enclosed cabinet away from heat

Garage/Utility Room/ Store Room

Flammable sprays, cleaners, paints,		Enclosed cabinet away from heat
Paint thinner, oily rags		Discard unneeded items safely

In Car/Truck

Gasoline		Do not store.
See also garage above.		

Other

Teacher: Use with Lesson Plan, Page 9. Duplicate as student use.

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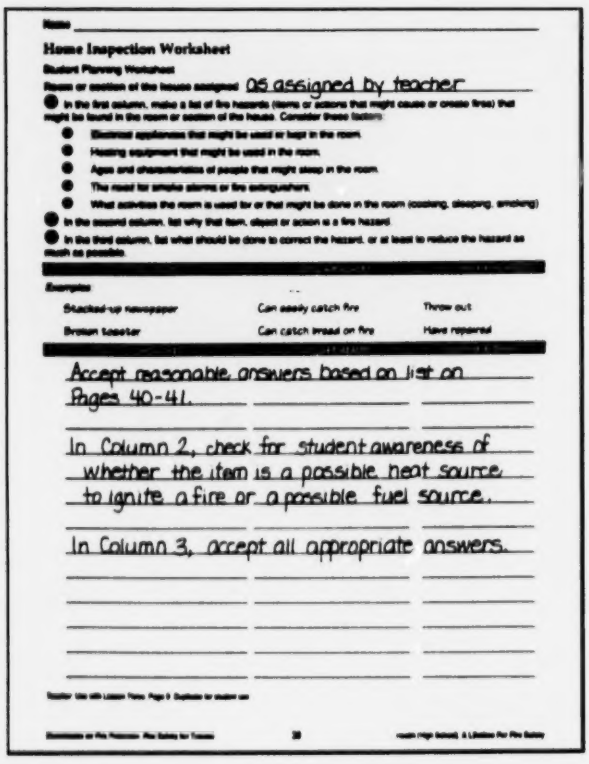
ANSWER KEY-2



Name _____

Home Inspection Worksheet

Student Planning Worksheet

Room or section of the house assigned: as assigned by teacher

- In the first column, make a list of fire hazards (items or actions that might cause or create fires) that might be found in the room or section of the house. Consider these factors:
  - Electrical appliances that might be used or kept in the room.
  - Heating equipment that might be used in the room.
  - Ages and characteristics of people that might sleep in the room.
  - The need for smoke alarms or fire extinguishers.
  - What activities the room is used for or that might be done in the room (cooking, sleeping, smoking)
- In the second column, list why that item, object or action is a fire hazard.
- In the third column, list what should be done to correct the hazard, or at least to reduce the hazard as much as possible.

Examples

Stacked-up newspaper	Can easily catch fire	Throw out
Broken toaster	Can catch bread on fire	Have repaired

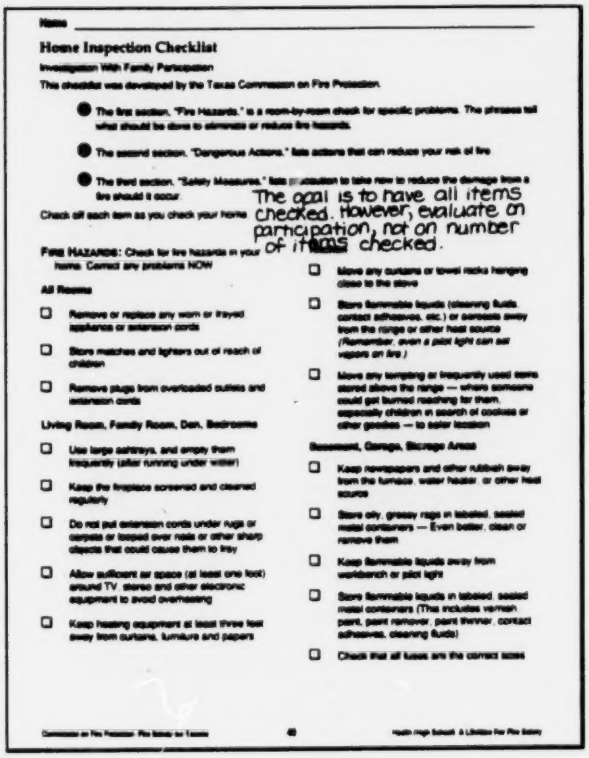
Accept reasonable answers based on list on Pages 40-41.

In Column 2, check for student awareness of whether the item is a possible heat source to ignite a fire or a possible fuel source.

In Column 3, accept all appropriate answers.

Teacher: Use with Lesson Three, Page 3. Duplicate as student use.

Commission on Fire Protection: Fire Safety for Texans 39 Health (High School): A Lifetime For Fire Safety



Name _____

Home Inspection Checklist

Investigation With Family Participation

This checklist was developed by the Texas Commission on Fire Protection.

- The first section, "Fire Hazards," is a room-by-room check for specific problems. The phrases tell what should be done to eliminate or reduce fire hazards.
- The second section, "Dangerous Actions," lists actions that can reduce your risk of fire.
- The third section, "Safety Measures," lists precautions to take now to reduce the damage from a fire should it occur.

Check off each item as you check your home.

The goal is to have all items checked. However, evaluate on participation, not on number of items checked.

Fire Hazards: Check for fire hazards in your home. Correct any problems NOW.

All Rooms

- ☐ Remove or replace any worn or frayed appliance or extension cords
- ☐ Store matches and lighters out of reach of children
- ☐ Remove plugs from overloaded outlets and extension cords

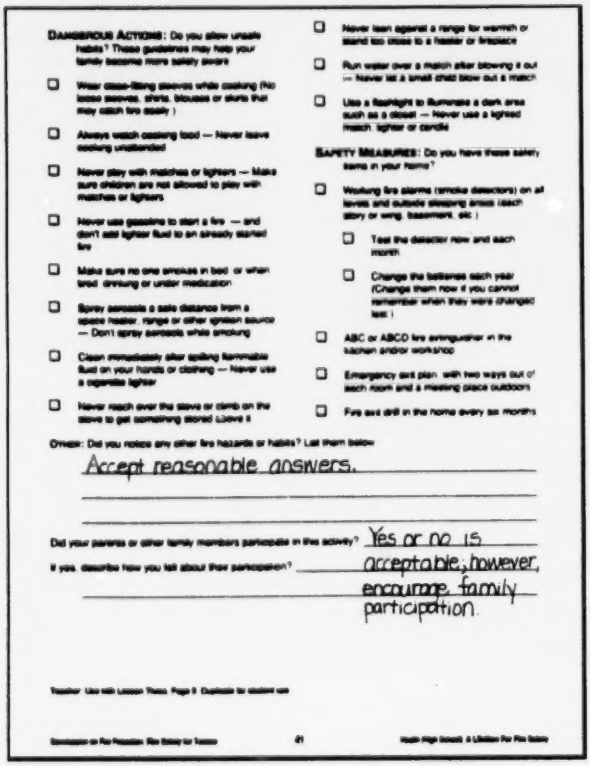
Living Room, Family Room, Den, Bedrooms

- ☐ Use large ashtrays, and empty them frequently (after running under water)
- ☐ Keep the fireplace screened and cleaned regularly
- ☐ Do not put extension cords under rugs or carpets or looped over nails or other sharp objects that could cause them to fray
- ☐ Allow sufficient air space (at least one foot) around TV, stereo and other electronic equipment to avoid overheating
- ☐ Keep heating equipment at least three feet away from curtains, furniture and papers
- ☐ Move any curtains or towel racks hanging close to the stove
- ☐ Store flammable liquids (cleaning fluids, contact adhesives, etc.) or aerosols away from the range or other heat source (Remember, even a pilot light can set vapors on fire.)
- ☐ Move any tempting or frequently used items stored above the range — where someone could get burned reaching for them, especially children in search of cookies or other goodies — to safer location

Basement, Garage, Storage Areas

- ☐ Keep newspapers and other rubbish away from the furnace, water heater, or other heat source
- ☐ Store oily, greasy rags in labeled, sealed metal containers — Even better, clean or remove them
- ☐ Keep flammable liquids away from workbench or pilot light
- ☐ Store flammable liquids in labeled, sealed metal containers (This includes varnish, paint, paint remover, paint thinner, contact adhesives, cleaning fluids)
- ☐ Check that all fuses are the correct sizes

Commission on Fire Protection: Fire Safety for Texans 40 Health (High School): A Lifetime For Fire Safety



Dangerous Actions: Do you allow unsafe habits? These guidelines may help your family become more safety aware.

- ☐ Wear close-fitting sleeves while cooking (No loose sleeves, shirts, blouses or shirts that may catch fire easily.)
- ☐ Always watch cooking food — Never leave cooking unattended
- ☐ Never play with matches or lighters — Make sure children are not allowed to play with matches or lighters
- ☐ Never use gasoline to start a fire — and don't add lighter fluid to an already started fire
- ☐ Make sure no one smokes in bed or when tired, drinking or under medication
- ☐ Spray aerosols a safe distance from a space heater, range or other ignition source — Don't spray aerosols while smoking
- ☐ Clean immediately after spilling flammable fluid on your hands or clothing — Never use a cigarette lighter
- ☐ Never reach over the stove or climb on the stove to get something stored above it
- ☐ Never lean against a range for warmth or stand too close to a heater or fireplace
- ☐ Run water over a match after blowing it out — Never let a small child blow out a match
- ☐ Use a flashlight to illuminate a dark area such as a closet — Never use a lighted match, lighter or candle

Safety Measures: Do you have these safety items in your home?

- ☐ Working fire alarms (smoke detectors) on all levels and outside sleeping areas (each story or wing, basement, etc.)
  - ☐ Test the detector now and each month
  - ☐ Change the batteries each year (Change them now if you cannot remember when they were changed last.)
- ☐ ABC or ABCD fire extinguisher in the kitchen and/or workshop
- ☐ Emergency exit plan with two ways out of each room and a meeting place outdoors
- ☐ Fire exit drill in the home every six months

Others: Did you notice any other fire hazards or habits? List them below.

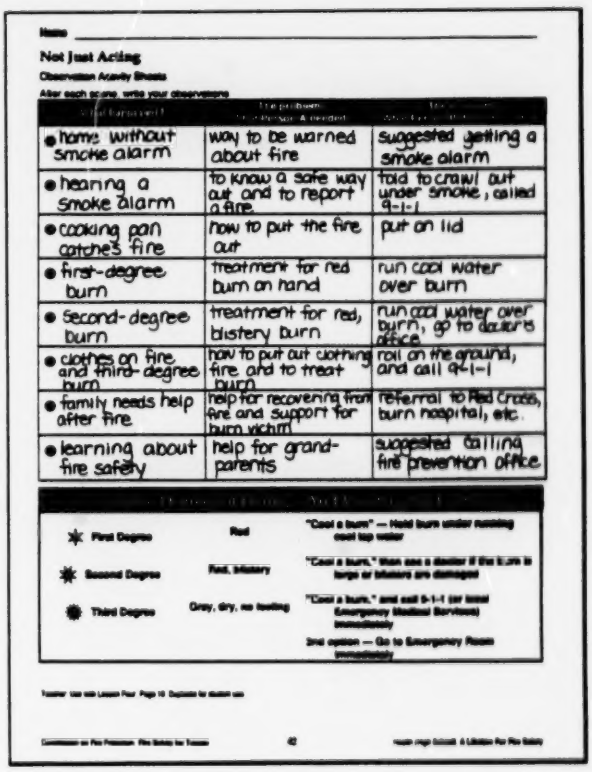
Accept reasonable answers.

Did your parents or other family members participate in this activity? Yes or no is acceptable, however, encourage family participation.

If yes, describe how you felt about their participation? _____

Teacher: Use with Lesson Three, Page 3. Duplicate as student use.

Commission on Fire Protection: Fire Safety for Texans 41 Health (High School): A Lifetime For Fire Safety



Name _____

Not Just Acting

Observation Anxiety Sheets

After each scene, write your observations.

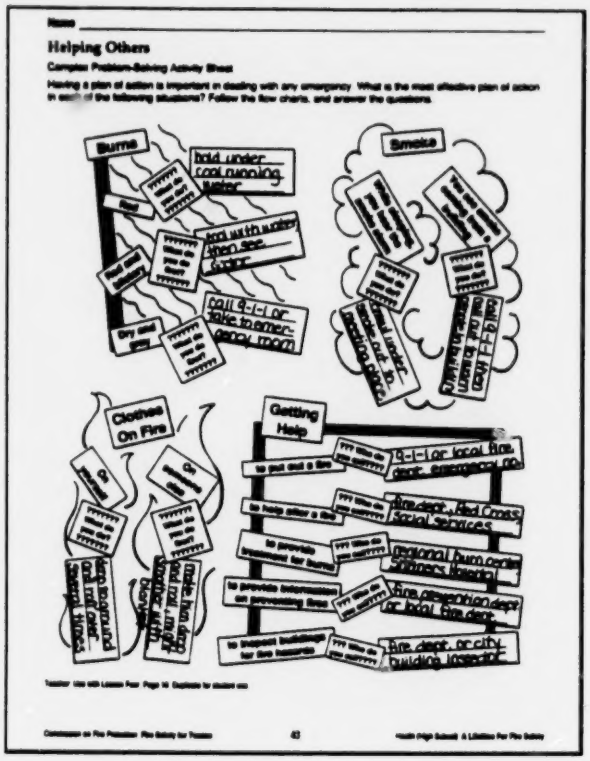
• home without smoke alarm	way to be warned about fire	suggested getting a smoke alarm
• hearing a smoke alarm	to know a safe way out and to report a fire	told to crawl out under smoke, called 9-1-1
• cooking pan catches fire	how to put the fire out	put on lid
• first-degree burn	treatment for red burn on hand	run cool water over burn
• second-degree burn	treatment for red, blistery burn	run cool water over burn, go to doctors office
• clothes on fire and third-degree burn	how to put out clothing fire and to treat burn	roll on the ground, and call 9-1-1
• family needs help after fire	help for recovering from fire and support for burn victim	referral to Red Cross, burn hospital, etc.
• learning about fire safety	help for grand-parents	suggested calling fire prevention office

✱ First Degree	Red	"Cool a burn" — Hold burn under running cool tap water
✱ Second Degree	Red, blistery	"Cool a burn," then see a doctor if the burn is large or blisters are damaged
✱ Third Degree	Gray, dry, no feeling	"Cool a burn," and call 9-1-1 (or local Emergency Medical Services) immediately 2nd option — Go to Emergency Room immediately

Teacher: Use with Lesson Four, Page 10. Duplicate as student use.

Commission on Fire Protection: Fire Safety for Texans 42 Health (High School): A Lifetime For Fire Safety

ANSWER KEY-3



Name _____

Helping Others

Complete Problem-Solving Activity Sheet

Having a plan of action is important in dealing with any emergency. What is the most effective plan of action in each of the following situations? Follow the flow charts, and answer the questions.

Burns

hold under cool running water

cool with water when size is larger

call 9-1-1 or take to emergency room

Smoke

Clothes On Fire

Getting Help

to put out a fire

9-1-1 or local fire dept. emergency no.

to help after a fire

fire dept., Red Cross, Social services

to provide treatment for burns

regional burn center, shriners hospital

to provide information on preventing fires

fire prevention dept. or local fire dept.

to inspect buildings for fire hazards

fire dept. or city building inspector

Teacher: Use with Lesson Four, Page 14. Duplicate for student use.

Student Materials — Duplicating Masters

Name _____

- Fire safety facts
- Tips on reducing fires
- Expanding your point of view

Teacher: Duplicate for use as cover to student booklet.

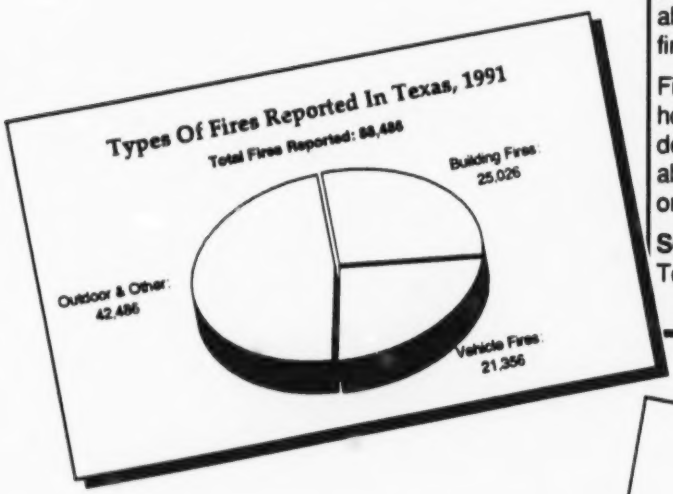
Name _____

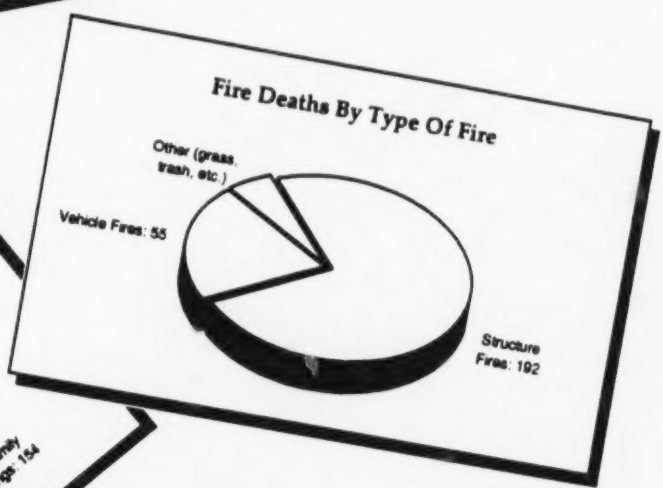
Fires In Texas 1991

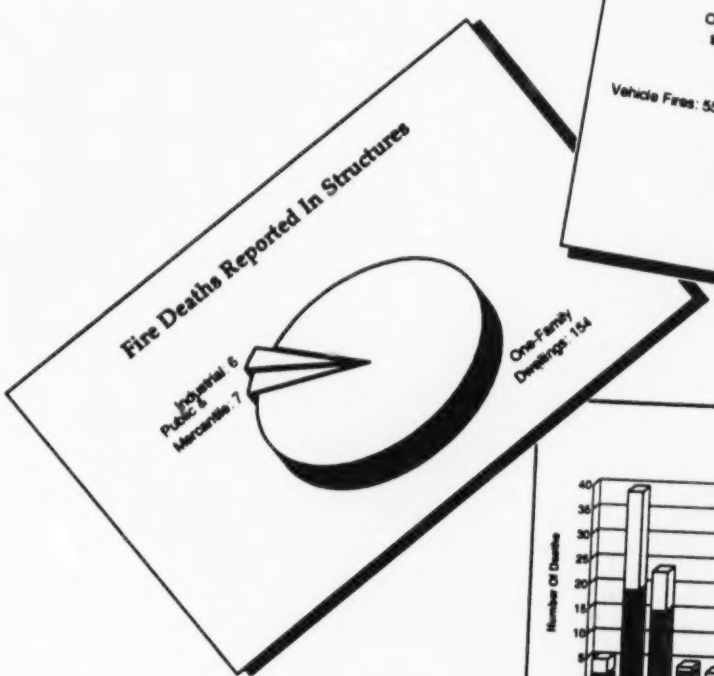
The graphs on these two pages describe the fire problem in Texas. They reflect the number of fires that occurred in 1991. They also provide details about the victims of fire and the general causes of fires.

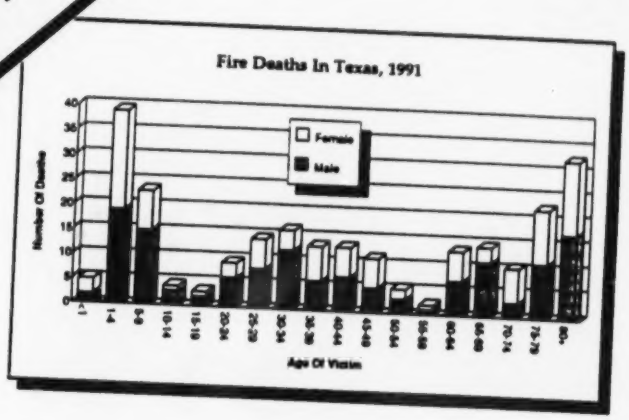
Fire experts frequently concentrate on fires in the home. Each year, approximately 80 percent of all fire deaths occur in buildings. Out of those fire deaths, about 75 percent occur in homes, most commonly in one-family homes.

Sources: Texas Fire Incident Reporting System and Texas Department of Health.


Types Of Fires Reported In Texas, 1991
Total Fires Reported: 88,486
Building Fires: 25,026
Outdoor & Other: 42,486
Vehicle Fires: 21,356







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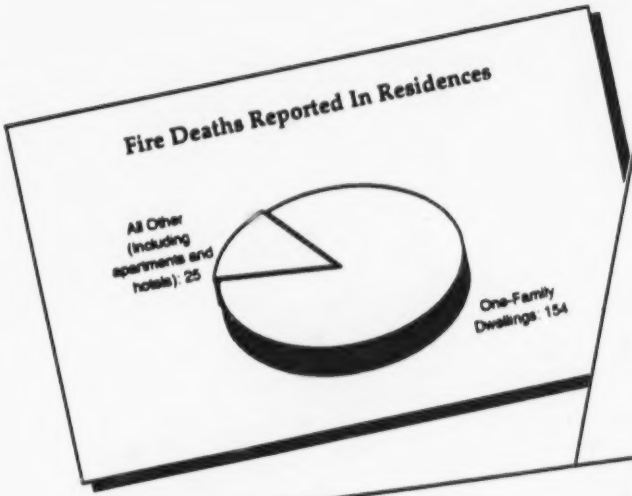
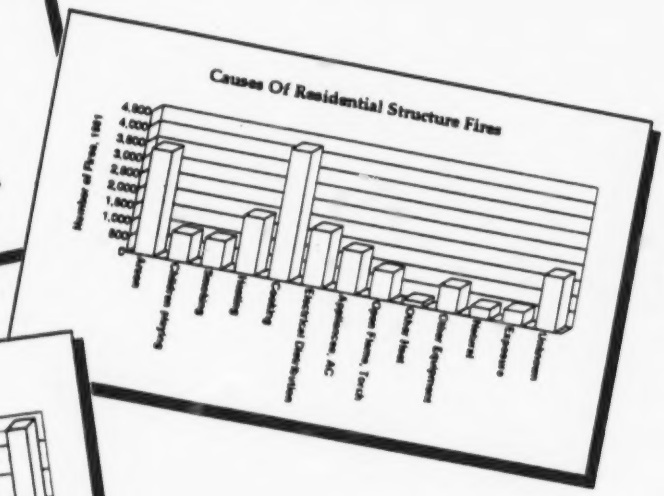
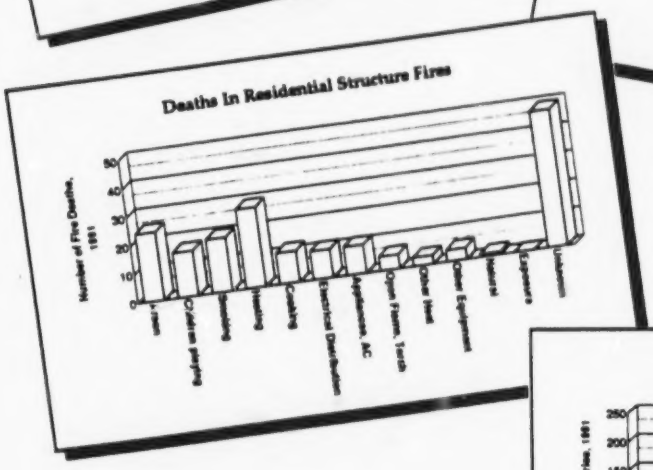
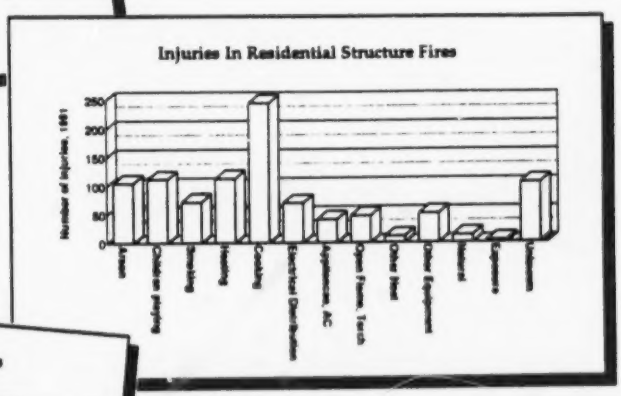
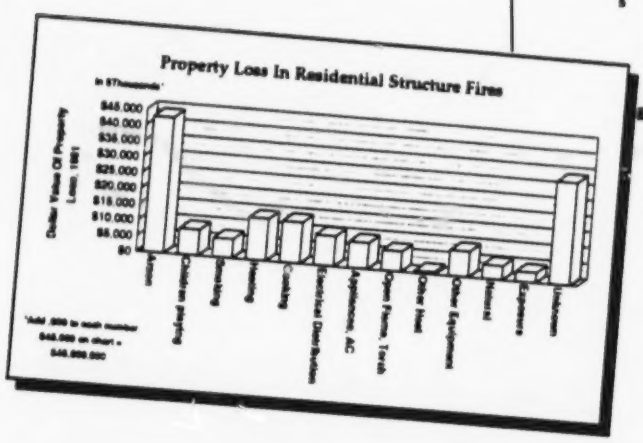










Fires In Texas 1991

Teacher: Use with Lesson One, Page 7. Duplicate for student use.

Name _____

Analysis of "Fires In Texas 1991"

Data Analysis Activity Sheet

General Causes Of Fires

Arson: Officially called "incendiary" or "suspicious." Evidence proves the fire was intentionally set, or circumstances indicate the fire may have been set on purpose.

Children playing: The fire was caused by a child or children playing with matches, lighter or other type of heat source (such as, flame in a heater or hot heating element on a stove).

Smoking: The fire was the result of careless smoking. Examples: letting hot ashes of cigarette butts fall on furniture, not completely putting out a cigarette before putting in a trash can, and smoking in bed.

Heating: The fire started with heating equipment, including central heating systems, local heating equipment (including portable heaters, wall heaters, fireplaces) and water heaters.

Cooking: The fire started with food or grease, usually left unattended in a pan or hot cooking appliance.

Electrical distribution: The fire started in electrical wiring, circuit boxes, switches or similar equipment within the structure itself. Does not include extension cords.

Appliances, AC: The fire started in an appliance, including central and room air conditioners. Includes kitchen equipment (unless food caught fire first), hair dryers and other personal appliances, and power tools.

Open Flame, Torch: The fire was caused by an open flame not associated with any other specified equipment. Most common: matches, lighters, welding and cutting torches.

Other heat: A source of heat not associated with any other specified equipment started the fire.

Other equipment: The fire was caused by equipment not specified in other groups. Most commonly includes industrial or special-use equipment.

Natural: The fire was caused by natural events, most commonly lightning.

Exposure: The fire started as a result of a nearby fire. Most commonly occurs in adjoining buildings.

Unknown: Based on available evidence, the cause of the fire cannot be determined .

Using the graphs in "Fires In Texas, 1991," answer the following questions about fires in homes:

1. What caused the largest number of fires?

   _____

   About how many fires? _____
2. What known causes placed second and third in the number of fires in home? _____

   _____
3. What type of fire caused the largest number of death? _____

   About how many deaths? _____
4. What known causes placed second and third in the number of deaths? _____

   _____
5. What known fire causes placed first, second and third in the number of fire injuries?

   _____ _____

   _____ _____
6. What known fire causes placed first, second and third in the amount of dollar loss caused by fires? _____

   _____
7. Based on this information, what three types of fires do you think Texans should be concerned about? _____

   _____

   _____
8. Do you think that fires will be reduced if everyone is more careful with fire hazards (things that can cause fires, such as cigarettes, heaters and cooking equipment)?

   _____

   Why? _____

   _____

   _____

Teacher: Use with Lesson One, Page 7. Duplicate for student use

Name _____

Product Warning Labels

DISINFECTANT SPRAY

ELIMINATES

PHYSICAL HAZARDS:

Flammable: *Contents under pressure. Do not use near fire, sparks or flame. Do not puncture or incinerate container, exposure to temperatures above 130° F may cause bursting. Do not use on polished wood furniture, rayon fabrics or acrylic plastics.*

HYPO-ALLERGENIC

LIQUID HAIR SPRAY

Warning: Flammable.
Avoid fire, flame or smoking while handling and until hair is fully dry. Avoid spraying near eyes. Keep out of reach of children.

Always look for flammable or combustible warning labels!

INTERIOR/EXTERIOR ENAMEL

SPRAY PAINT

DANGER: EXTREMELY FLAMMABLE, CAN PRESSURIZED. HARMFUL OR FATAL IF SWALLOWED, VAPOR HARMFUL.
Read Caution Details on Back Panel Before Using.

CAUTION:

KEEP OUT OF REACH OF CHILDREN.

DO NOT INCINERATE (BURN) CAN.

AVOID HEAT. KEEP CAN BELOW 120°F.
High temperature may cause bursting. Do not place can on radiator, stove, in direct sunlight or near other heat sources.

DO NOT PUNCTURE CAN. Contents under pressure will discharge.

AVOID OPEN FLAMES, SPARKS, PILOT LIGHTS. DO NOT SMOKE. Vapor may ignite explosively.

Polyurethane

Liquid Plastic

Super Gloss

DANGER!
COMBUSTIBLE.
HARMFUL OR FATAL IF SWALLOWED.
Read complete precautions on back panel.

DANGER! CONTAINS MINERAL SPIRITS. COMBUSTIBLE. HARMFUL OR FATAL IF SWALLOWED. Keep away from heat and open flame. Avoid contact with skin, eyes and clothing. Avoid breathing of vapors.
To avoid spontaneous combustion, soak oily cloths and rags in water after use or place in closed metal container away from buildings and combustible materials.

SPRAY STARCH

- **BODY WITHOUT STIFFNES**
- **SPRAYS ON EVENLY**
- **EASIER AND FASTER**

CAUTION: Use only as directed. Do not take internally. Do not puncture or incinerate container. Do not expose to heat or store at temperatures above 120°F. Do not use near flame. Avoid spraying on hard-surface floors as residue could make them slippery.
KEEP OUT OF REACH OF CHILDREN.

Teacher: Use with Lesson Two, Page 8. Duplicate for student use.

Name _____

Product Warning Labels

Investigation Activity Sheet

Look around your home. What flammable products are kept there? What suggestions do you have for storing these items safely?

Product Brand Name	Type of Product	Where Stored	Better Location?
Examples:			
Fancy Hairdo	Hair spray	Bathroom cabinet	None
Zip-Ease	Paint stripper	Cabinet under kitchen sink	Metal cabinet in storeroom

Product Brand Name	Type of Product	Where Stored	Better Location?
Kitchen			
Bathroom			
Garage/Utility Room/ Store Room			
In Car/Truck			
Other			

Teacher: Use with Lesson Two, Page 8. Duplicate for student use.

Name _____

Home Inspection Worksheet

Student Planning Worksheet

Room or section of the house assigned _____

❶ In the first column, make a list of fire hazards (items or actions that might cause or create fires) that might be found in the room or section of the house. Consider these factors:

- Electrical appliances that might be used or kept in the room.
- Heating equipment that might be used in the room.
- Ages and characteristics of people that might sleep in the room.
- The need for smoke alarms or fire extinguishers.
- What activities the room is used for or that might be done in the room (cooking, sleeping, smoking)

❷ In the second column, list why that item, object or action is a fire hazard.

❸ In the third column, list what should be done to correct the hazard, or at least to reduce the hazard as much as possible.

Fire Hazard	Why a hazard?	Needed action
Examples:		
Stacked-up newspaper	Can easily catch fire	Throw out
Broken toaster	Can catch bread on fire	Have repaired
Fire Hazard	**Why a hazard?**	**Needed action**

Teacher: Use with Lesson Three, Page 9. Duplicate for student use.

Name _____

Home Inspection Checklist

Investigation With Family Participation

This checklist was developed by the Texas Commission on Fire Protection.

1. The first section, "Fire Hazards," is a room-by-room check for specific problems. The phrases tell what should be done to eliminate or reduce fire hazards.
2. The second section, "Dangerous Actions," lists actions that can reduce your risk of fire.
3. The third section, "Safety Measures," lists precaution to take now to reduce the damage from a fire should it occur.

Check off each item as you check your home.

FIRE HAZARDS: Check for fire hazards in your home. Correct any problems NOW.

All Rooms

- ☐ Remove or replace any worn or frayed appliance or extension cords
- ☐ Store matches and lighters out of reach of children
- ☐ Remove plugs from overloaded outlets and extension cords

Living Room, Family Room, Den, Bedrooms

- ☐ Use large ashtrays, and empty them frequently (after running under water)
- ☐ Keep the fireplace screened and cleaned regularly
- ☐ Do not put extension cords under rugs or carpets or looped over nails or other sharp objects that could cause them to fray
- ☐ Allow sufficient air space (at least one foot) around TV, stereo and other electronic equipment to avoid overheating
- ☐ Keep heating equipment at least three feet away from curtains, furniture and papers

Kitchen

- ☐ Move any curtains or towel racks hanging close to the stove
- ☐ Store flammable liquids (cleaning fluids, contact adhesives, etc.) or aerosols away from the range or other heat source *(Remember, even a pilot light can set vapors on fire.)*
- ☐ Move any tempting or frequently used items stored above the range — where someone could get burned reaching for them, especially children in search of cookies or other goodies — to safer location

Basement, Garage, Storage Areas

- ☐ Keep newspapers and other rubbish away from the furnace, water heater, or other heat source
- ☐ Store oily, greasy rags in labeled, sealed metal containers — Even better, clean or remove them
- ☐ Keep flammable liquids away from workbench or pilot light
- ☐ Store flammable liquids in labeled, sealed metal containers (This includes varnish, paint, paint remover, paint thinner, contact adhesives, cleaning fluids)
- ☐ Check that all fuses are the correct sizes

DANGEROUS ACTIONS: Do you allow unsafe habits? These guidelines may help your family become more safety aware.

- ☐ Wear close-fitting sleeves while cooking (No loose sleeves, shirts, blouses or skirts that may catch fire easily.)
- ☐ Always watch cooking food — Never leave cooking unattended
- ☐ Never play with matches or lighters — Make sure children are not allowed to play with matches or lighters
- ☐ Never use gasoline to start a fire — and don't add lighter fluid to an already started fire
- ☐ Make sure no one smokes in bed, or when tired, drinking or under medication
- ☐ Spray aerosols a safe distance from a space heater, range or other ignition source — Don't spray aerosols while smoking
- ☐ Clean immediately after spilling flammable fluid on your hands or clothing — Never use a cigarette lighter
- ☐ Never reach over the stove or climb on the stove to get something stored above it
- ☐ Never lean against a range for warmth or stand too close to a heater or fireplace
- ☐ Run water over a match after blowing it out — Never let a small child blow out a match
- ☐ Use a flashlight to illuminate a dark area, such as a closet — Never use a lighted match, lighter or candle

SAFETY MEASURES: Do you have these safety items in your home?

- ☐ Working fire alarms (smoke detectors) on all levels and outside sleeping areas (each story or wing, basement, etc.)
  - ☐ Test the detector now and each month.
  - ☐ Change the batteries each year. (Change them now if you cannot remember when they were changed last.)
- ☐ ABC or ABCD fire extinguisher in the kitchen and/or workshop
- ☐ Emergency exit plan, with two ways out of each room and a meeting place outdoors
- ☐ Fire exit drill in the home every six months

OTHER: Did you notice any other fire hazards or habits? List them below.

_____

_____

_____

Did your parents or other family members participate in this activity? _____

If yes, describe how you felt about their participation? _____

_____

Teacher: Use with Lesson Three, Page 9. Duplicate for student use.

Name _____

Not Just Acting

Observation Activity Sheets

After each scene, write your observations

What happened?	The problem (What Person A needed)	The solution (What Person B did or provided)
❶		
❷		
❸		
❹		
❺		
❻		
❼		
❽		

Three Degrees of Burns ... And What To Do First

First Degree	Red	"Cool a burn" — Hold burn under running cool tap water
Second Degree	Red, blistery	"Cool a burn," then see a doctor if the burn is large or blisters are damaged
Third Degree	Gray, dry, no feeling	"Cool a burn," and call 9-1-1 (or local Emergency Medical Services) immediately 2nd option — Go to Emergency Room immediately

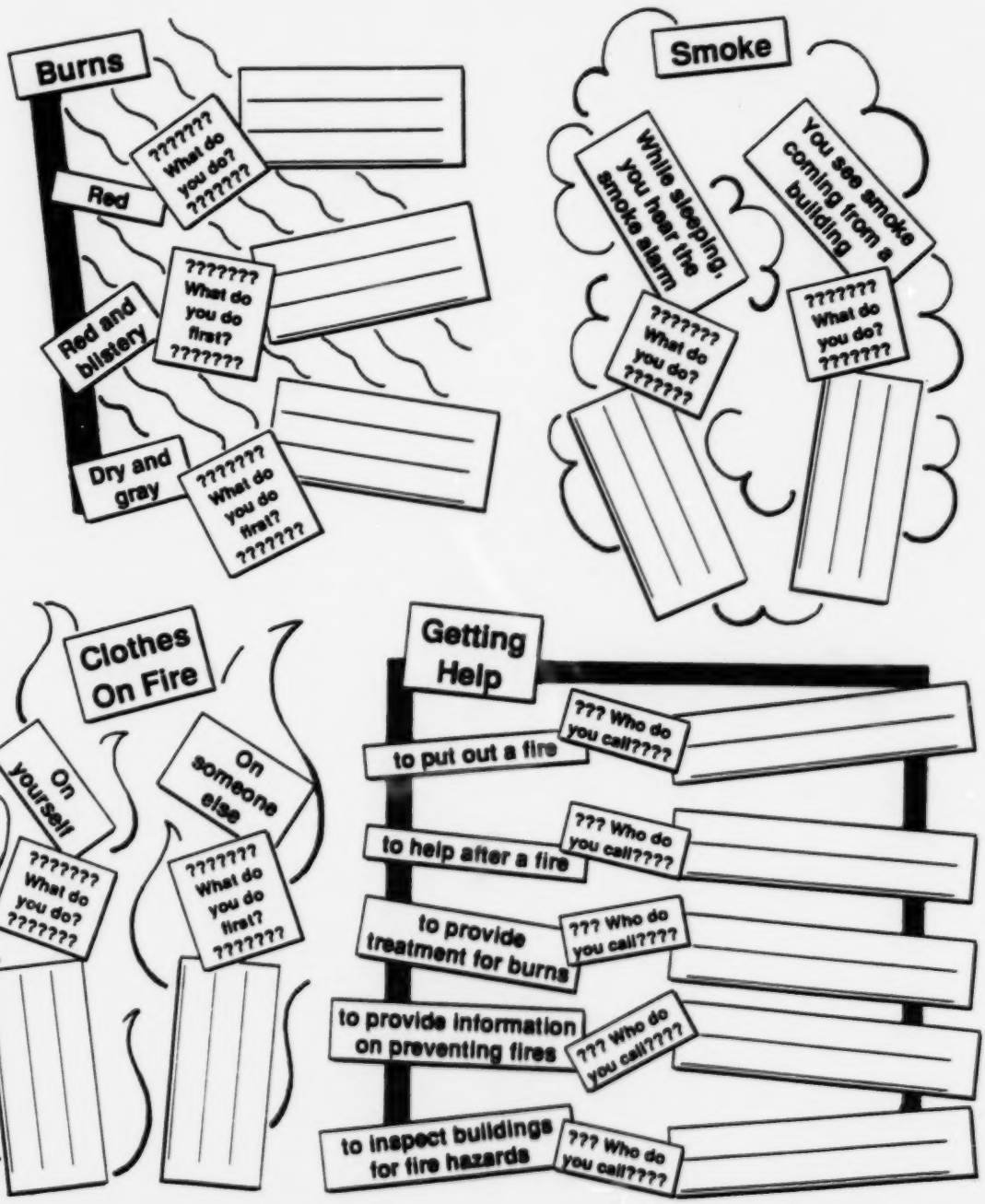
Teacher: Use with Lesson Four, Page 10. Duplicate for student use.

Name _____

Helping Others

Complex Problem-Solving Activity Sheet

Having a plan of action is important in dealing with any emergency. What is the most effective plan of action in each of the following situations? Follow the flow charts, and answer the questions.


Burns
Red
??????? What do you do? ???????
Red and blistery
??????? What do you do first? ???????
Dry and gray
??????? What do you do first? ???????
Smoke
While sleeping, you hear the smoke alarm
You see smoke coming from a building
??????? What do you do? ???????
??????? What do you do? ???????
Clothes On Fire
On yourself
On someone else
??????? What do you do? ???????
??????? What do you do first? ???????
Getting Help
to put out a fire
??? Who do you call????
to help after a fire
??? Who do you call????
to provide treatment for burns
??? Who do you call????
to provide information on preventing fires
??? Who do you call????
to inspect buildings for fire hazards
??? Who do you call????

Teacher: Use with Lesson Four, Page 10. Duplicate for student use.

Name _____

Careless-Smoking Fires

Background Information

During 1991, 16 people died in 13 house fires caused by careless smoking. Generally, a fire listed as a "careless-smoking" fire starts when someone, sometimes even the victim himself, did not dispose of cigarettes or matches properly.

Careless Smoking In Living Rooms

Twelve people died in nine fires that started in living rooms. Among those fires, only one home had a working smoke detector.

The victims were:

- † Males, age 6, 26, 33, 38, 60, 65 and 70.
- † Females, age 23, 38, 63 and 90.

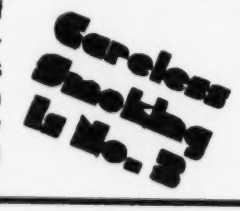
Careless Smoking In Bedrooms

Four people died in four different fires that started in bedrooms. Common starting locations: bedding (sheets and blankets)

The victims were:

- † Males, age 39 and 68.
- † Females, age 68 and 74.

Among the known causes of fatal fires in one- and two-family dwelling, careless smoking ranked third in number of deaths. Only arson and heating-related fires caused more deaths.



The U.S. Surgeon General's Office requires health warning labels on cigarette packages and in cigarette advertising. Here are examples of those warning labels.

SURGEON GENERAL'S WARNING: Quitting Smoking Now Greatly Reduces Serious Risks to Your Health.

SURGEON GENERAL'S WARNING: Smoking By Pregnant Women May Result in Fetal Injury, Premature Birth, And Low Birth Weight.

SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.

SURGEON GENERAL'S WARNING: Cigarette Smoke Contains Carbon Monoxide.

Teacher: Use with Lesson Five, Page 11. Duplicate for student use.

Name _____

Public Service Announcements

Background Information

Public service announcements (PSAs) are messages that promote a cause or provide information. Some PSAs appear in magazines and newspapers. Others appear on television and radio stations. You can recognize a PSA by the words "A public service of this station (or the publication)" or a similar phrase.

SHARING IS CARING
Growing.
AT 10:26 A.M. SANDY HARDWICK BROUGHT HER 57-YEAR-OLD CARDIAC PATIENT BACK TO LIFE.
WHAT DID YOU ACCOMPLISH THIS MORNING?
If you're not satisfied with your answer, maybe you should be looking for a more satisfying career. For more information, call us at 1-800-962-NURSE.
IF CARING WERE ENOUGH, ANYONE COULD BE A NURSE.
Growing.
CHECK YOUR HOT SPOTS
With proper use, portable electric space heaters provide warmth and comfort. But space heaters need their space. They aren't drying racks or toasters! Keep anything combustible at least three feet from an electric space heater.
If you have questions, ask the fire department. Fire prevention is their mission. Make it yours too!
FIRE strikes back
Ouch!
Fire burns. And matches and lighters make small fires that become big fires very quickly. Keep yourself from getting burned. Stay away from matches and lighters because
FIRE STRIKES BACK!
Gone.
Only you can prevent forest fires

Teacher: Use with Lesson Five, Page 11. Duplicate for student use.